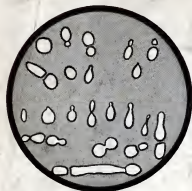


# This is the stubborn germ you must kill



## REAL RELIEF FROM DANDRUFF

*Discovery that Strange Bottling of Dandruff Leads to New Kind of Relief to 76% of Patients in Clinic. Thousands Report Remarkable Results*

### Pityrosporum ovale

*The germ which causes dandruff, magnified many times. In cases of dandruff it is always present on the scalp and hair and in dandruff scales.*

If you have any evidence of dandruff, don't waste time on untried ointments, salves or solutions that merely strike at symptoms and relieve only temporarily.

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Listerine surrounds the hair and scalp and penetrates infected hair follicles, and kills the germ *Pityrosporum ovale*, which, research now shows, causes dandruff.

### See Improvement at Once

After the first few treatments you will notice how Listerine Antiseptic diminishes the number of unsightly crusts and scales. How it allays irritating itch and burning which so often accompany a dandruff condition. How it cleanses and freshens the scalp so that it feels lively and youthful. How it gives new vigor to the hair, itself.

For your own satisfaction, examine Listerine's brilliant results in the most searching clinical study of dandruff undertaken in years.

### Curing Rabbits of Dandruff

Rabbits given dandruff by inocula



WOMEN SAY THE BEST WAY TO APPLY LISTERINE IS BY MEDICINE DROPPER APPLIED TO THE PART IN THE HAIR

tion of *Pityrosporum ovale* were treated on one side, only, with Listerine Antiseptic once a day. The other side was untreated.

Within four days improvement was noted, and at the end of fourteen days, on the average, a complete cure was effected. No scales, no crusts. The sides not treated with Listerine showed evidence of dandruff nearly a month later.

### Relief in Two Weeks

In a noted midwestern skin clinic, men and women dandruff patients were chosen for the Listerine treatment. A majority were instructed to massage the scalp once a day with Listerine Antiseptic. The rest of the group used a non-antiseptic solution. We ask you to carefully note the convincing results again achieved:

A substantial number of the users of Listerine Antiseptic obtained

marked relief in the first two weeks on the average. In many other cases, scalps were found to be clear and free of dandruff in from three to eight weeks—itching stopped, dandruff scales were eliminated, and in some cases falling hair was terminated. *Virtually none of the persons using a non-antiseptic solution showed any improvement.*

### 76% Got Relief

Meanwhile in a New Jersey clinic, other dermatologists were cross-checking the results of the midwestern clinic. Fifty men and women, all with definitely established cases of dandruff, were undergoing treatment twice a day with Listerine Antiseptic. At the end of three weeks, 76% showed either complete disappearance of, or marked improvement in, the symptoms of dandruff, i.e., itching, scaling. Only three failed to respond to the Listerine treatment, possibly due, as a research report suggests, to irregularity in applying the treatment.

### Keep it Up

If you have the slightest evidence of dandruff, start now with Listerine and massage, once a day at least. Twice a day is better. Caution: Don't expect overnight miracles. Remember, dandruff is a germ disease, requiring persistent and systematic treatment, which should be antiseptic. Remember, also, that Listerine's results against dandruff are a matter of laboratory and clinical record.

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# AMAZING STORIES



December, 1937

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# AMAZING STORIES

## *Science Fiction*

Vol. 11

DECEMBER, 1937

No. 6

### CONTENTS

#### Editorial

- The Four Poles of the Earth.....*T. O'Connor Sloane, Ph.D.* 11

#### Serials

- "When Atlantis Was" (Conclusion).....*H. F. Arnold* 34  
Zagribud (Serial in Three Parts).....*John Russell Fearn* 58

#### Stories Complete in This Issue

- The Myriad.....*Harold S. Sykes* 16  
The Radium Doom.....*Milton R. Peril* 90  
Blue Beam of Pestilence.....*Eando Binder* 114

#### Poem

- Landscapes of Luna.....*Bob Olsen* 89

- Science Questionnaire ..... 113

- Special Book Review by Dr. Sloane ..... 133

- In the Realm of Books .....*C. A. Brandt* 134

- Discussions ..... 136

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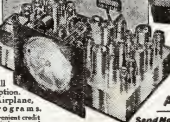
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# AMAZING STORIES

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T. O'CONOR SLOANE, Ph.D., *Editor*  
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*Extravagant Fiction To-day . . . . . Cold Fact To-morrow*

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## The Four Poles of the Earth

By T. O'CONOR SLOANE, Ph. D.

OUR earth we know is an approximate sphere, rotating on an axis, passing through its center with the allowance for a slight libration which it would show to an observer at a distant point of view; such as the moon might be assumed to provide. The ends of this imaginary axis are the north and south poles. There are no natural features of the surface to distinguish them; they are determined by astronomical observations. These observations are not the most agreeable processes. The observer lies prostrate on the surface and takes the angle between the sun or other celestial object and its reflection in a perfectly level mirror. This surface is provided by a bright layer of a liquid, generally of mercury. We are told of other expedients used by observers, such as a vessel of liquid tar would supply. Such substitutes for the perfect mirror that mer-

cury provides are to be considered only substitutes.

The altitude of the celestial body thus taken is exactly double the true altitude, so after dividing this altitude by two, the calculation is made on that basis, the navigator's friend, the Nautical Almanac, giving him the data for his work. The position of the heavenly bodies varies constantly, and it is this variation which necessitates the use of the Almanac.

The earth has two other poles, the magnetic poles, to which the compass needle points. These are far away from the poles of the earth. The north magnetic pole is some 1200 miles distant from the earth's north pole, and the south magnetic pole is 1080 miles distant from the south pole of the earth, measured on the meridians. It would seem that the line taken as connecting these two should pass through the center of the earth.

But the location of the magnetic poles is such that the imaginary line connecting them passes some 750 miles to one side of the center of our sphere.

When a theory of an open polar sea was upheld by the Arctic explorer, Isaac Israel Hayes, it seemed to meet with little favor. It did not seem at all probable that open water was to be found at the region surrounding the North Pole. It seemed utterly improbable that such a condition of things existed there and as most authorities believed, it was found when the polar region was reached that there was no open sea there. The great gulf, as it may be termed, was a broken area of ice fields. Water-filled cracks and cracks covered with thinner ice were forming and closing. The great sheets of ice moved together in some cases, and when they did so the irresistible force which they exerted pushed up great masses of ice into the air, as barricades to easy travel over the Polar Sea.

It would be interesting to know how many readers thought that there was an error in this title. For a very natural supposition might be, that, as the earth has two poles, one north pole and one south pole, there should be two polar seas—the north and the south seas, surrounding the respective north and south poles. But the fact is that there is no south polar sea, because the south pole is in the midst of a vast land area, whose extent is approximately as large as the whole of Europe and Australia made into one great continent. Except for this Antarctic Continent, the most southern continental land in the rest of the earth is Tierra del Fuego, the insular, southern end of South America. It may be asked how many old time mariners, as their ships rounded Cape

Horn, realized that below the southern horizon there was a great land with mountains, some of them fifteen thousand feet high, and one of them, Mount Erebus, 12,780 feet high, an active volcano. The south pole is located at an elevation of 10,200 feet. From the days of Captain Cook to very recent years, a succession of explorers have essayed the investigation of this region.

Peary made his way to the North Pole after at least one failure and returned in safety, as far as he was concerned. But to show the dangers of the areas of open water between the great sheets of ice that float on the deep waters of the northern frigid sea, one of his scientific aids who went ahead of his relay party, was drowned and his body was lost in the icy waters.

The area of the North Polar Sea is not a solid sheet of ice. The great ice sheets, floes they are called, from the Icelandic language, are continually breaking up, and areas of the icy waters appear between them. These are called leads. It was in one of these leads that Peary's aid perished. The leads are the greatest obstacles to forward progress. When one or both the sheets of ice, on the opposite sides of a lead, start to move, they may meet and the tremendous force of their meeting will often raise precipitate hillocks of ice, thirty or more feet in height.

It is on one of these sheets of ice, reported to be only one half mile square, that the four Russian explorers with their little hut, made as light as possible, are now floating and drifting about. They are drifting away from the pole and are approaching the distance of several hundred miles therefrom. Their motion is uncontrollable. They have no conception



of where leads may open, and are taking temperature and other records while the ice may be melting on the surface so that the interior of their hut is the only dry area. It wards off the sun's rays which melt the exposed icy surface, while if they leave it, they have to wade in water formed by the melted ice. Their little hut is a sort of island in the waste of icy water and floating ice. The ice may be quite thin, but sometimes is over a hundred feet in thickness. The future fate of the observers is absolutely a matter of surmise.

The Eskimos have two kinds of boats, built on light framework and sheathed with skins. The one of special value to travellers and explorers on the polar ice sheet is the umiak, a large boat that can carry a great load, but is so light that it is easily transported over the ice-surface. If it strikes a floe while floating in a lead, a bulge doing no particular harm may result. If a hole is made this is easily mended with a patch of skin. Crude as they may seem, they are the best craft yet devised for their uses. A wooden boat or a metal one would be too heavy and too easily made *hors de combat*.

Frequent reports are published which have been sent by wireless from the four explorers, but in all that has appeared, there is not any mention of a umiak. This might eventually be their life-boat. This Eskimo umiak, light, skin-covered craft, is of great carrying capacity, and could carry the four observers and their equipment and only be half, or less loaded.

One celebrated explorer, Stefansson has gone so far as to call the polar region "The Friendly Arctic," giving that name to a book. The inhabitants are comparatively well

disposed. Peary's successful trip to the Pole was greatly helped by his intimacy with the Eskimos, who showed every disposition to help him. When he reached the Pole he had no Caucasian with him. There were himself, a negro and some Eskimos, a group of anthropological interest, to say the least.

The general impression received from accounts of the Polar Sea is that it is not a very bad region. There are few accounts of bad storms; the principal and dangerous events are due to the drift, contact, and collision of floes, and the opening of leads cutting explorers off from escape.

It is far different on the South Polar continent. There the explorer is on land, there are no moving floes, no leads of icy water. But there are great ice-covered areas, with numerous crevasses of uncertain depth, ready to engulf man, his dog-teams, or his sled with his provisions. Poor Admiral Scott may justly be termed imprudent in attempting to introduce novelties into ice and glacier travelling. He tried the substitution of ponies for dogs to draw sledges. If a pony fell into a crevasse it involved great difficulty to save it or it might be impossible to pull it out on account of its weight. A dog could be drawn up, not without difficulty perhaps, but it was not a question of raising and handling several hundred pounds. To help the ponies on bad surfaces some kind of ice-shoes were provided, but seem to have been little used.

But the troubles of one of the expeditions began long before it reached the Antarctic land. There was a violent storm, a thousand or more miles before the polar continent was reached and there was a bucket brigade organized when the ship began to leak and the pumps would not clear her.

When the ice barrier encircling the polar land was reached at last and the trip to the Pole started, and the Scott party reached the Pole only to find that the Amundsen party had got there before them. Scott's disappointment in not being the first to get to his objective was intense. The last act of the tragedy was the death of Scott and his companions. They were only eleven miles from a rescue camp when they perished.

The narratives of South Polar explorers give a description of the awful conditions of the Antarctic, and certainly a very vivid one. There are bitterly cold, violent winds and a surface in many areas dangerous to traverse. It is the only great area of the earth's surface without human inhabitants. Not only this, but there are no quadrupeds of any size, the living beings on land being almost restricted to the most curious of all birds, the penguin. This is a bird that cannot fly, that has very poor power of progressing on his feet, but which, in the ice-cold Antarctic water is almost as much at home as is the fish. The progression on land is a hopeless sort of waddle, but in the water and under it, they dart about with marvelous speed and spring from it far up on the shore, like projectiles from a gun. There are several varieties of penguins, the Emperor penguin, which is the largest, is about three feet high.

There are no bears, no musk oxen. Both of these animals are used for food in the North Polar country.

The ocean about this region of desolation contains numerous whales. The more deadly weapons of modern whaling and the use of steam driven craft are killing off so many whales, that they bid fair to become extinct.

The old time whalers did not attempt to secure the faster variety of cetacean of the Antarctic Sea. They were virtually afraid of them. Their speed and tenacity of life made them secure from the harpooning and subsequent lancing from the bow of a relatively small boat. The slower and more easily killed whales are in a great measure exterminated and now the great blue whale is succumbing to harpoon-bombing from small steamboats several of which attend upon a large "Mother" ship, as it may be called.

But the most impressive of ocean creatures of the "Antarctic" is the killer-whale or grampus. It is fair to say that this cetacean is the most terrible of creatures. They attain a length of twenty feet, and will attack and kill a whale three or more times their length. A picture of them shows them alongside an ice-shore, with their heads high out of the water ready for their prey. If a human being fell into the water, they would devour him. One attempt to photograph them failed, as the photographer ran away from the edge of the ice in alarm.

Airplanes carried the Russian observers with their equipment to their North Polar station. In the Antarctic, airplanes have done good service in the study of the South continent. Motor cars have even done some service there.

But picture the work of Captain Cook in the eighteenth century and of Commodore Wilkes about a century later, going around the edge of the great continent with sailing vessels. It is fair to say that greater advances have been made in Antarctic exploration in the last few years, than was the total progress of all preceding generations. This advance is due to the airplane in great part. It is naturally

due also to the use of steam. The old-time sailing vessels could not go much closer to the wind than five points of compass bearing. Five points of the compass are equal to  $56\frac{1}{4}$  degrees of angular measurement. Then there was usually a drift right across the line of sailing, leeway it was called, when close hauled, so it will be seen that the old-time ship, trying to make way against the wind was at a great disadvantage. Everything told against her windward progress. Much of these troubles are overcome by steam. Gasoline does its part in airplanes. Diesel engines in ships do not appear on the program up to date.

The basis of what was a minor tragedy, as it might almost be called, was the discovery of the South Pole by Amundsen a few weeks before Scott reached it. So after all their hardships a cairn-like monument erected by Amundsen's party greeted Scott's men, after their long succession of

hardships, heart-breaking trials and resolute advance. It was an awful blow, as in a sense it nullified Scott's really great achievement. But the blow was nothing to what followed. One of Scott's party walked out from the failing and exhausted group whose members were trying to return. He felt that he was impeding the party as his strength had failed him. It was virtually a suicide. Then when the rest reached the end of their final day's journey, enfeebled to the last degree, and made camp, they went no further, but died almost within sight of safety.

The four Russians floating about the Polar Ocean on a floe of ice, drifting they know not whither, are not contributing much to the world's knowledge. And when it is realized what a region of dreadful hardship the Antarctic Continent is, it seems as if it were well to leave North Pole and South Pole alone.



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# The Myriad

By HAROLD S. SYKES

*This story out-Lilliputs Lilliputia, for the action is carried on largely by the minutest kind of beings, who are decidedly well able to take care of themselves.*

IT was early morning and the students were entering the lecture room and taking their places beneath the immense quartz windows in the bright sunlight. A signal sounded and they whirled their chairs to face the darkened end of the room. A boy and a girl, the last to arrive, barely had time to reach their places before the lecture started.

"Students, the subject of study at this time is modern History, from the year 1985 to the present, a period of 50 years. First we shall visualize an event now almost forgotten, but one that might have been of the deepest significance. Questions will be answered during the afternoon class, as your instructor will appear at that time."

The room stilled, students whispering occasionally, as scholars have done since the first day of collective study.

"You were almost late, Nera. And this is an important lesson, too." The last young man to arrive was speaking to the girl next to him, who had encountered him at the door.

"Don't I know it! It was a message from home. Mother was worried, as mothers always are. She insisted on seeing me; I had to stand in front of the televisior for five minutes. Now, Jack, what's your excuse?"

"I'll tell you later, there's the lesson now."

The room darkened perceptibly as curtains moved soundlessly over the high windows. A laboratory scene slowly materialized realistic to the point where each one of the class seemed to be living as part of the constantly changing picture. A calendar on the wall in the screen gave the date—March 10, 1985.

Jack conscientiously pressed a button on the arm of his chair, recording a photograph of the scene before him. Nera was not taking notes but watched with interest, as history repeated itself for their benefit.

A heavy, dark-bearded man entered, took off his coat, donned an apron and busied himself at a table of scientific apparatus. Then he spoke into an instrument on his desk: "Bring them in. Yes, at once, please."

The door opened and a pleasant faced white uniformed nurse entered the room, wheeling a light metal carriage.

"And how are my little friends today?" The man was speaking softly as he bent over the vehicle.

"They are all well, Mr. Gernack," the nurse answered. "Linda complained to me that your voice is entirely too rough. She is almost deafened, she says, when you speak loudly."

"Well, well, let's see Linda this morning." Carefully he reached into the carriage and carefully he lifted



Paul replaced the writing implements, mounted to the back of his wasp and waved to them.  
Then the insect soared aloft, wheeled and vanished.



out a tiny figure and placed it on the top of his desk. It was a young girl, amazingly small, who stood bravely on the wide expanse of polished wood and gazed up at them. Then the doctor removed others from the carriage until two boys and two girls stood there, side by side.

"Did you weigh them today?"

"Yes, Doctor," the nurse replied. "Jerry weighs exactly eight ounces, little Ralph seven and one-quarter, Jessica six and three-sixteenths and Linda five and five-eighths ounces. They have been growing very slowly during the past two weeks."

"And why shouldn't they grow slowly?" the doctor questioned. "Do you realize these two boys and two girls are ten months old? They are almost adults. I shall mate them in a few days now. Their parents, if you remember, mated when they were four years of age. This is the third generation of my little family, and each generation matures more quickly. Very lucky it is that they learn more quickly also."

"And their children, when they are born, will they be smaller?"

"Of course, of course." The doctor spoke energetically. "But I forget—you were not with me when I began my grand experiment. The state provided me with foundlings and I cared for them and married them to each other. The first ones—from the orphan home—were not dwarfs, you understand. But I did halt their growth with drugs which I have discovered. And then I used hypnotism, of course, to impress my wishes on their subconscious minds. The children of the first ones grew up to weigh about ten pounds. But you know about that. These will average a little more than half a pound. And the next generation—"

**S**LOWLY the laboratory scene faded and slowly a new scene came into being. A large, well lighted place it was, with a stage at one end. On this platform stood Dr. Gernack, noticeably older now; before him a group of men and women—scientists from the important countries of the world. A calendar on the wall showed the date—June 5, 1995—ten years later than the first scene.

"I am happy to see you, my friends and colleagues," the doctor began, as he stood with hands clasped behind his back. "You know of my progress as reported in the scientific journals. Today I am happy to show you the final result of more than thirty years of work and research, disheartening failure and glorious success. To be brief, I have succeeded in breeding a portion of the human race to the reduced size of—" Here the scientist paused. His listeners leaned forward eagerly, impatient for him to continue. "—a size of one-half inch in height."

He rubbed his hands together and continued: "This is a ratio of one to 130 for stature with normal mankind. Many other comparisons might be made, but we don't have time for all that at present. Instead, we turn to the vast possibilities open to science with the intelligent aid of these tiny creatures. One of my reasons for devoting so many years to this experiment is for the help these little people may give us in bacteriology, in the minute study of metals and along many other lines.

"Surprisingly enough, I have found that the intelligence of this new race keeps pace with the quickened life processes. The present specimens will probably die of old age within two or three years. But their ability to learn is truly amazing. Many

things they seem to grasp by instinct; they need to be told only once and they remember throughout their little life span. They sleep but two hours out of the 24, the rest of the day and night they keep busy at work or study.

"I can no longer converse with them. My voice is unintelligible. Theirs is too high pitched; too rapid for us to understand. Some time ago I began using an electric writing machine. This means of communication they have refined, so they may ask or answer questions in writing.

"Clothes they make for themselves, of course. Food is prepared by certain ones for the whole group. Now, my friends, in order that you may see these subjects of mine, descendants of normal humans, I have arranged an enlarging apparatus."

Dr. Gernack busied himself with a tiny cabinet on a nearby stand, then the room darkened.

A row of houses flashed on a screen at the back of the stage. Children were seen playing in the yards, with men and women appearing from time to time. They moved so rapidly they seemed to be running; they were amazingly quick in all their movements. Then, at some signal, a score of adults marched forward and stood at attention, rigid, motionless.

**A**T first glance they appeared to be very similar to people of normal height. Then, after peculiar differences in costume were noted, it was seen that their heads were considerably larger in proportion than those of ordinary adults. Their skins were darker than that of the white race, similar to Indians in pigmentation. Suddenly a man and a woman whisked off their garments in a twinkling and stood erect on the en-

larging screen. Then was revealed a marked difference in anatomy. The bodies were narrow waisted, almost wasp-like and covered with a very thin, polished substance, as the outside skeletal armor of an insect.

"Already Nature is adapting them to their new problems of size and mass," Dr. Gernack observed. "That insect-like armor will be invaluable as a protection against injury from falls. Now they will bring out some of their tools and instruments and give an exhibition of their versatility in industry and the sciences."

Already a platform was being wheeled out of the nearest building. Lathe, drill press, carpenter's bench and forge could readily be recognized, also some sort of engine and dynamo. Along the whole length of the platform was a piece of steel, cylindrical and tapered to a rounded end.

"That steel, my friends, is an ordinary needle, three inches in length." It appeared more than 30 feet long, judging by the human figures. Then the watchers saw an oval hole near the large end—the eye for the thread.

Busily the men were working, starting the engine, sawing off a section at the tip of the needle with an electric power saw. Two men picked up the piece of metal as it fell and carried it to the forge. Almost within a space of seconds it had been alternately heated and hammered on the anvil, then placed in a machine. Shortly it was displayed as a gear wheel of intricate design. Other workers were busy fashioning furniture, making kitchen utensils, even designing gold and silver jewelry of microscopic size. Finally the picture was swept from the screen and Dr. Gernack stepped forward. He was met by a burst of applause from his fellow scientists.

"Details of my experiment and the habits and lives of these tiny people will be taken up in detail when we assemble here again following lunch."

A man stood up in the audience. He was tall, spare and well past middle age. Every eye turned to him.

"A very pretty experiment, Dr. Gernack. Very, very fine! You are to be congratulated. And, if you will allow me, I warn you to be very careful to see that none of those tiny humans escape from your laboratory. Keep them under control, for if they should escape, to multiply and plan and build, the world would be theirs—whenever they wanted it! Civilized nations would not stand a chance against them." The speaker sat down, amid a buzz of excited conversation.

THE scene faded and as the classroom grew lighter a pleasant, conversational voice was heard. Jack and Nera were among those who continued to pay close attention, while others yawned and fidgeted, as students will.

"In order to save time we shall now speak of subsequent events, presenting visual scenes only where necessary. The meeting of the scientists took place on June 5, 1995. The result was the awakening of a great interest and curiosity in the minds of civilized people, for the event was widely publicized. Pressure of public opinion made it necessary for Dr. Gernack to allow a number of television appearances to be made. The tiny people began to complain of these demonstrations, at last refusing to cooperate at all. Still men and women over the world insisted on seeing them again and again.

"The scientist who brought them into being was now satisfied. He had reached his goal, which was to breed

human beings so small that they would open new fields in research. Unfortunately, the tiny people did not favor an existence dedicated to pure science for someone else; they rebelled, appointing one of their number as dictator. This leader, named Anthony, demanded freedom for his people. This was denied.

"Less than a year later the entire colony vanished. Authorities blamed some unknown thief. Whether true or not, no trace or clue could be found.

"Then came another World War and the experiment was more or less forgotten. Dr. Gernack died in an asylum; his work abruptly terminated. The race has perished, no doubt. There have been occasional rumors of them from time to time, nothing to bear the weight of scientific investigation. Whether stolen by some person or persons or whether eaten alive by an animal will probably never be known. All that remains is a priceless collection of machines and implements constructed by them, now on display in the International Museum.

"You will now leave the room, to return this afternoon, at which time you may ask questions. Your instructor will be here in person to answer them for you, Class dismissed." The mechanical voice switched off automatically.

"Boy, is that interesting! I've heard about those little people, but not with the details we saw today." Jack took Nera's arm as they filed out of the room. "You know, Nera, there may be some of them living somewhere in the world. I'd like to find them, wouldn't you?"

"Yes, I would, but they were killed off long ago. It couldn't be possible for them to live without help from

big people. They would die in no time; too small to farm or get their own food, or build houses."

"I don't know, Nera. There's a chance—"

"News!"

The visicaster exclaimed the single word as it switched on automatically with the reception of the signal. Jack put down the book he had been reading and settled back in his chair. Probably some stratoship crash, he thought to himself. It was vacation time for all students and he found time heavy on his hands.

"News!" the voice repeated. "An apparent epidemic of sleeping sickness is reported in an area ten miles square in and around Albany. Health authorities are at a loss to name the specific disease which has placed 200 persons in bed, in a death-like trance. No evidence of encephalitis is found yet, and other symptoms lead medical authorities to believe the tsetse fly can in no way be held responsible. This African fly is unknown in the Iana,\* but is the carrier of one form of sleeping sickness known for many years. Further details will be given as rapidly as they develop."

The instrument was silent once more. A few moments later there was a tap on the window-pane and Jack saw Nera waiting for him. He joined her in the garden.

"Did you hear the news—about the sleeping sickness?"

"Yes," he replied. "Is that why you are paying this visit?"

She made a face at him. "Can't I call if I want to? I've lived next door for years."

"Any time you want to. Let's sit down on the bench and talk about the epidemic or about school or anything

you like. We'll be Seniors and—ouch!" He rubbed the back of his neck gingerly. "Something stung me."

Nera gasped suddenly and sat down. "Me, too! What was it, a bee?" She was rubbing her neck. Then Jack was prone, stretched out along the graveled path. Next Nera fell, sideways, across the sharp rock border and lay still. The light faded slowly and the stars came out. Anxious, terrified parents found them hours later and carried them to bed.

The sickness was spreading.

JACK knew consciousness, but was unable to move so much as a finger for the life of him. He sensed dimly that he was being cared for and it might have been hours later—possibly days—when he felt a sudden pain in his wrist. Then he sat up, growing stronger with each minute. Someone was talking to his father, who answered briefly from time to time.

"Yes, Mr. Tillson. Your boy will be all right. Strange, how the stuff seems to work in every case. No, don't thank me. I am merely following orders issued this morning. Twenty-five thousand cases, they say. There's probably a full story on the visicasters by now; see it. I must run along. I have dozens of calls to make yet."

Then his father's voice: "How are you, Jack? That was the Doctor who just left. He seems to have brought you around all right."

"Yes, Dad. I feel Okay. What bit me?"

"I'll look at the news-roll, as the Doctor suggested. I haven't had time to listen in for days." A minute later he returned with the sheet, printed by the combination television and radio

\*International Association of Nations of the Americas.

recording receiver with which every home was equipped.

"Just listen to this, Jack! Here, I'll read it to you. 'The laboratory Pigmies reappear. The race of tiny, insect-like people, conceived in the laboratory of a certain Dr. Gernack 50 years ago, and believed dead since 1995, claim full responsibility for the epidemic of sleeping sickness which has swept over the eastern seaboard. The Myriad, as they style themselves in their proclamation, claim to have injected a drug in the victims. They offer a counteracting drug which will, it is said, effect a cure. This drug is to be revealed as soon as their demands are met by the Federal Government. Refusal to abide by these demands will bring, according to the Myriad, a rapid increase of the sickness throughout the United States, Central and South America, until the whole Iana is stricken, from Cape Horn to the Arctic Ocean.

"'Not one of the Myriad has been reported as seen by any person. Most authorities consider the whole thing a gigantic hoax and point out the impossibility of beings, a fraction of an inch in height, being able to attack grown men and women. Thousands of citizens are insisting so strongly that the demands be met, however, that Washington may accede to the request. The demands made by the Myriad—providing there actually is such a people—include the storing of certain metals, chemicals and foods at designated spots near Camden, Albany, Hartford and Columbus.'

"Here, Jack, is a later newscast. Listen: 'Demands of the mysterious Myriad were met late yesterday by the Government. This morning a second message was placed before the President and copies delivered to the several Governors of the States

affected. As in the first instance, the message was in the form of a letter, containing printing of 2 point size,\* beautifully executed, apparently by hand. The letter, in English, named the drug to be used, its preparation and full instructions for administering the dose to all victims of sleeping sickness. Immediately following a test, made at the General Hospital in New York, the fastest aircraft were pressed into service, speeding to physicians and internes with a supply of the drug to each populated sector of the stricken area. More news to follow.'

"Dad, I believe these little people are still alive. I studied Modern History in school last year and learned about Gernack—even saw some of his experiments, and the visuals of the Myriad, as they are known now, on the screen. But where can they be?"

"If this practically unbelievable yarn is really true, Jack, we shall hear more about it soon enough. Actually, it sounds like a mad scientist and his idea of a practical joke. It would be impossible for the Myriad to exist without protection from natural enemies."

"But that doesn't account for the bite I got on my neck. It felt like a bee stinging me. Nera, too, remember, felt the same thing. How is she, by the way?"

"Just like a million," answered a voice from the door and then Nera entered the bedroom. "As soon as Mother saw I was all right again, she dashed away to see Aunt Kate, who came down with the whatever-it-is soon after we did. So I came over here and Parker showed me in."

"Fine. I'll tell you, Nera, let's do

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\*One thirty-sixth of an inch.



some detective work and see if we can find out where this mysterious race of little people is hiding. We have nothing else to do this summer; that is if Dad—"

"All right, my Boy. Your Dad will let you prowl around. It should do you both good. I'd advise you to look up and down the highways and byways, where there's plenty of sunshine and fresh air. Then you will at least find continued good health and be ready for school. Of course you won't find the Myriad. But go ahead."

"That's great! What do you say, Nera? Shall we go find them and show him up as a poor prophet?"

"Yes, Jack, let's do." So it was decided.

FOR a while it was fun to search through the farms near home, looking for some evidence of the tiny ones. Jack insisted on carefully examining every ant hill with a magnifying glass, scanning the trunk of each dead tree and peering under every boulder. He continued the search with the enthusiastic single aim of a scientist on the threshold of a mighty new discovery. Nera argued with him at times.

"Jack, it is senseless to wander over the entire country, inspecting every last inch of the ground. Do you realize it may take us hundreds of years to find these people at this rate?"

"All right, if that's the way you feel about it you can stay home. I'm going to keep on hunting until I find them."

"What's the use of fighting about it? But I do think we ought to stop and reason this thing out. It might save months and years of time, if we think a little more and walk a little less."

"Okay, Nera. What's your idea?"

She sat down on a fallen tree trunk. "About the messages—how were they delivered to the President and the Governors? That might give us a clue to the way the Myriad travel—how they live."

"By George, you're right! The news service never did explain that. Let's go to Washington and ask."

"No, let's go to Albany instead, and snoop around the Capitol. Your Father knows the Governor; we'll get an introduction from him."

Mr. Tillson put his tongue in his cheek but obligingly wrote the letter to his boyhood friend, Governor Sanders, as requested. Jack climbed into his car, with Nera beside him, and started for Albany. The Governor was in his office when they arrived at the Capitol an hour later. The letter was delivered into the inner sanctum by a secretary. Five minutes later the Governor appeared, to conduct them personally into his office.

"And what can I do for you, Mr. Tillson, and for the charming young lady?" He beamed at them as they were seated before his desk.

"How did you receive the letters from the Myriad, Governor? You see, Nera—Miss Gregson—and I are trying to locate them. Were the letters you received brought in with the morning mail?"

"So are ten thousand others trying to find this elusive people," the executive chuckled largely. "But about the letters; very mysterious it was. They were here on my desk each time when I arrived in the morning. The doors were locked during the night, of course. But wait, I'll have my secretary bring in those letters and you can see them for yourselves." He pressed a button, gave the necessary directions to his assistant, and wait-

ed a few moments for the two sheets to appear. Tissue paper, three inches square, Jack and Nera saw at a glance as they bent over the desk. The printing was intensely black, every character executed with the skill of an expert engraver.

"Governor, these have been rolled into cylinders," Nera said.

"So they have. Curious, I didn't notice that before; rather I did not attach any particular significance to the fact. They were spread out on the desk, I recall, with a paper clip weighting down each corner. Now what do you deduce from that, my dear young lady?"

"That means they were delivered in the form of a cylinder, about the size of the old fashioned matches our grandparents used to use. Now we must decide how they could have been brought into the room."

"They couldn't, that's the peculiar part of the whole thing. The doors were locked. Not even a mouse could enter this room at night. A mosquito might fly in, perhaps, through the air conditioning system, nothing else could. I suspect some of the attachés may have had a hand in it, though the State Police Department has been unable to prove it."

**T**HE two visitors were bowed out of the Gubernatorial Offices a short time later.

"Nera, I'll bet the messenger of the Myriad did get in through the air system. Let's drive toward home while we try to figure this thing out." They rode in silence, then Jack found a seldom used road and stopped. A shady hillside invited them to leave the car. Seated on a carpet of leaves, with his back against a tree, Jack produced a notebook. He laid it on the ground while searching through

his pockets for a pencil. A wasp buzzed about their heads. It swooped behind the girl. A moment later she fell back, inert, lifeless. Jack heard the humming noise too late. He, too, slumped to the bed of leaves carpeting the hillside.

The insect circled, alighted on the blank page of the notebook and remained motionless. A tiny figure slid down from a position astride its narrow waist. Tied to the body of the insect was a narrow little sack. This the human figure opened, thrusting in a microscopic hypodermic syringe. Then, from the same container he drew forth a tiny vial and a brush. With the two incredibly huge giants, Jack and Nera, motionless on either side of him, he set to work, rapidly painting a message across the face of the sheet on which he stood. The wasp waited, docile and patient. For some minutes he worked, then vaulted to the back of his insect of burden to circle over the motionless forms. Suddenly the insect dived to one and then the other. They stirred restlessly.

"What happened?" Jack muttered to himself as he sat up and stared around foggily. "Nera, what's the matter with you, are you hurt? Did we have a wreck, I wonder?" A glance at the road below assured him of the soundness of the car.

Nera opened her eyes, sat up, too. The notebook was between them. Nera saw it first and picked it up. They read the message together:

"Warning. You are prisoners of the Myriad. Do as directed and you will live. If you are foolish you will both die. The Myriad can kill you as easily as put you to sleep. If you agree to follow instructions, write the word 'yes' on the paper below this message. Signed, PAUL, Director of the Myriad."

"By golly, Nera! We found them!" Jack grinned with pleasure.

"They found us, you mean. But, Jack, what will we do?"

"Do? We'll obey instructions, that's what. Of course we're not prisoners in the strictest sense of the word, but we'll no doubt be lovely corpses if we don't obey." He found a pencil in his shirt pocket and printed the single word of agreement, "yes," on the page. "Now let's see what happens."

A moment later the wasp shot down out of the sky, landing gracefully on the notebook. The two softly exclaimed at the incredible sight of Paul, jumping from the back of his mount. Boldly he stood with head back and looked up at them, a tiny figure little more than one-quarter of an inch. He produced ink and began printing his instructions:

"Climb this hill and follow to the left along the ridge to a wire fence, then to the right, down the other side of the hill to the shore of a lake. I will be waiting for you there."

Paul replaced the writing implements, mounted to the back of his wasp and waved to them. Then the insect soared aloft, wheeled and vanished between the trees.

Speechless with excitement the pair hurried up the hill. Within an hour they were at the lake, breathless and panting. The wasp reappeared, with Paul. Jack placed his notebook on the ground and they watched as the Lilliputian director wrote, instructing them to walk along the shore to a rocky point which jutted into the water. There they were to swim to the nearest wooded island.

**"WE** shall fight," Governor Sanders declared positively. "It is unthinkable that a handful of

antlike beings should be allowed to dictate to the great State of New York." He paused and surveyed the crowd before him.

The meeting was being held in the vast auditorium of the new Capitol building. Reporters in the press section scribbled furiously, or spoke jerkily into the visicaster microphones. Grim faced men and women sat stonily in the audience, or muttered to each other.

Then, as the Governor stopped speaking, there followed an awkward pause.

"Does any parent or relative here have anything to say at this time?" The Governor asked the question as his eyes swept the gathering. Then he saw Mr. Tillson, standing alone in the center of the audience.

"Your Excellency, though it may be unthinkable that the Myriad are dictating to us, it is even more unthinkable that we should fail to obey the instructions given us."

"But my dear Mr. Tillson," the Governor replied, "we have followed instructions to the extent of providing food for the prisoners held on the island. This self-styled dictator, Paul, sent word that more than a score of men and women are being held prisoners on an island in the middle of a certain lake not far from here. This, unfortunately, seems to be true, for we have messages written by the prisoners themselves to their relatives. The message further states that these prisoners, including your own son, I am sorry to say, my dear Mr. Tillson, will be safe as long as we do not attempt to make war on the Myriad. Afraid we might wipe out this tiny upstart race, this Paul is trying to buy protection for safety to our own kidnaped people.

"Well he can't bluff me!"

The speaker stilled an angry murmur of protest with a gesture. "Let me continue, please. The safety and well being of these prisoners should, ordinarily, receive our every consideration. On the other hand it is an insult to our intelligence to do nothing; we can not afford to do nothing, or to agree to Paul's 'conditions.' We must make a bold attempt to rescue these kidnaped victims and then, with the power of our State militia and the United States Army, if need be, we will blast that island from the face of the earth, destroying the Myriad forever!"

Shouts of protest followed this speech. Other men and women sprang to their feet, all attempting to talk at once. The Governor's face crimsoned as he banged a gavel for order. At last a semblance of quiet was restored.

"As Governor of this state I demand order! Let us reason this thing out." Cries of "No, no!" interrupted him. But he continued, "Kidnaping flourished in this country for a century. Even the famous 'G' men were unable to stamp it out entirely. It was only when the legislative powers passed laws—cold-blooded laws, if you will—that we did away with kidnaping. Those laws, as you well know, made it a capital offense to give kidnapers any ransom money whatever. When the police began arresting the relatives of victims, instead of looking for the criminals, then the gangsters found their business unprofitable. We did not allow them to receive any money. True they murdered their victims for a time, but they soon realized their business did not pay. It is better that a few should suffer, for the ultimate benefit and safety of the multitude."

The auditorium was in an uproar.

Police rushed in, fighting vainly to control the mass of frenzied parents, relatives and friends of those held by the Myriad. Then paralyzing shots were fired, at the command of the Governor, stunning the mob, while the news spread with the speed of light across the United States, the Iana and the entire civilized world.

"HAD enough breakfast?" Jack asked.

Nera nodded and smiled at him. They were seated on the ground, with the remains of the lunch spread on a paper between them. Jack nodded back over one shoulder in the direction of the other men and women, seated or standing disconsolately in a huddled, sheep-like group.

"Pretty sorry looking bunch," he stated. "They remind me of a bunch of castaways on a desert island. Or a bunch of lambs, waiting for the slaughter."

"Don't talk like that, Jack! Sometimes you are too realistic in the things you say. I don't feel very fine myself. I know Mother is frantic with worry."

"I'm sorry, Nera. Dad must be worried, too. Let's keep a show of courage, though. Suppose we go and try to cheer them up, shall we?"

At that moment a wasp settled on the rock between them.

"Where's my pencil?" Jack began his usual search for the missing article. "Here it is, and the notebook, too. We'll see what Paul has to say."

The tiny Dictator stood between them now, fearlessly stroking the side of his domesticated insect. Upon seeing the notebook on the ground he took his bottle and brush and, after vaulting twice his own height, from the ground to the opened page, he began his message:

"You two follow me. We now have a way to talk. Don't tell the others. Paul."

"Come on, Jack. Let's see the thing, whatever it is. It will be better than doing nothing."

They were both glad of the interruption. Walking from the shore to a point near the center of the island, they waited. Suddenly the wasp circled, sweeping by scant inches from their faces. Jack saw the shiny metal cabinet, resembling a midget radio set. It stood on a low flat rock at the base of a tree.

Leaning forward, with hands on knees, they could see Paul, standing on top of the instrument. He motioned for them to be seated. Then a voice came to their ears from the cabinet and they saw the leader speaking into a diminutive microphone.

"Can you understand me?" They nodded, eagerly. "Very well," he continued. "Now you speak, Jack, but softly, please. I want to adjust the frequency changer, so that I will be able to understand you two." Jack spoke, while Paul made adjustments.

"That's fine," he called. "Please speak rapidly, even if you have to pause between sentences. And I shall talk as deliberately as I can. Then you will have no trouble in making out what I say. You two are the most sensible ones of the Big Race here on our island, so I want to tell you something of our existence. Then, if our plans miscarry so that we are unable to establish a cooperative relationship with your people, you will at least have our story."

"Go ahead," Jack urged. "And if you don't mind I'll take a few notes. Nera and I saw some visuals of Dr. Gernack's experiments, and we were told in school that your race vanished from the laboratory."

"I am glad you know at least that much about us," Paul replied. "It will make it easier for me to present later events to you in some understandable fashion."

"My ancestors made their escape from the laboratory in the year 1996, after long and careful preparation. Under the guidance of Anthony, our first and greatest dictator, the Myriad made arrangements to escape, literally under the eyes of Dr. Gernack and his assistants. From materials furnished for amusement and instruction the men, women and even the older children all helped in the construction of an extension ladder which would reach to the top of the giant wall surrounding our town. This wall was 25 times the height of a man, therefore it took us some little time to perfect our means of escape and make the other necessary preparations."

"**A**T last we were ready. The ladder was assembled and placed against the wall one evening as soon as the laboratory was locked up for the night. Two workmen ascended first; upon reaching the top they cut through a heavy, loosely woven material, suspended over our village to keep out insects and other monsters. Soon the entire colony of 46 men, women and children were standing on top of the wall. Then the ladder was placed on the outside and all but four men descended to the laboratory table. These workers lowered the ladder to the inside again and set to work to destroy it, stacking the larger pieces back in the wood yard. These four then made their escape by climbing a rope, or as you would say, a thread, looped around a large iron post—a carpet tack to you—which held the cloth covering in place."



"Instead of sliding down to the floor the fugitives made their way across the table to the wall and found a means of escape through a crevice beneath the window frame. They lowered themselves to the ground with the rope, looped through the screen and later pulled down after them.

After searching through most of the night, two scouts reported the location of an abandoned ant-nest. This was the home of the colony for several months. There were many casualties; they knew from the study of books in the laboratory, that there would be countless enemies in the outside world, but could not realize with what utter ferocity these carnivorous beasts would attack. Before adequate means for defense were developed, more than half the colony had been wiped out by warrior ants, spiders, lizards, rodents, birds and bats.

"Arthur was the foremost scientist of the group; Anthony was the leader. Arthur it was who decided the stature of the race was still too large for safety. If the little people were to survive they needed to lose half their height. During the following 20 years the change was made, from one-half inch in your system of measurement, to one-fifth of an inch for women, one-fourth for the men.

"Lucky it was that any Myriad can carry 20 times his own weight and fall unhurt from a distance 50 times his own height. As it was, with every member loaded down with immense packs of necessities, the fugitives almost perished from hunger before they could successfully shift for themselves and develop food resources.

"LANDSCAPING of the laboratory grounds made it imperative for the colony to leave the ant-nest. The next home was in the rock

wall of the building, in caverns left by the masons."

"Why did you choose your name—Myriad?" Jack asked, as Paul paused in his recital.

"It was this way," the dictator replied. "Shortly before the death of Anthony, at the ripe old age of seven years, he made a prophecy: 'We shall make a place for ourselves in this world when we reach a population of 10,000. A myriad, cleverly disposed, can have any part of the world's goods. We shall dictate to the world'."

"Are you a myriad—10,000?" Nera asked.

"Yes, we are now. But let me hasten to assure you that we are not all on this island. We realize, in our dealings with you people, that you may attempt to destroy us. Therefore we have five cities, in various parts of the United States. This is the largest, named Gernack, in honor of the scientist. He was a genius and we owe him a great debt of gratitude, even though he did permit us to be commercialized in his later years."

Jack asked the next question. "Don't you want to grow larger—to our normal size? It would surely be possible."

"Did you ever wish to be a giant?" Paul asked. "Perhaps when you were a child you wanted to grow a mile high, but obviously you would not consider such a thing now. We are very happy as we are. The trouble is we have not yet found the things we need for our advancing civilization. That's why we are calling upon you people to supply us with the chemicals, minerals, miscellaneous supplies we find it impossible to obtain for ourselves. You have world-wide commerce and can bring things from the ends of the earth; we are necessarily

still somewhat restrained in our sphere of operations.

"But to resume the history of the Myriad. The colony grew and flourished in the wall caverns. At last, after the death of Anthony and Arthur, the younger generation chose new leaders and voted to search for a new home, far away, where there would be little chance of being discovered.

"To digress for a moment. Ever since the escape from the laboratory certain members of the colony have dedicated their lives to the study of insects and the smaller animals, not only because they have been our greatest enemies, but because we thought it possible to make use of them. Before I was born the Myriad had conquered and domesticated individual members of the insect world. With our present knowledge of wasps, dragon flies, honey bees and other members of the insect kingdom we have all the beasts of burden we need for our travels. We know their instincts and capabilities and make them work for us; we even have an established neutrality with the warrior ants. It's an exchange of one kind of food for another; in this case, for the benefit of all."

"Then you delivered your message by means of winged insects!" Nera exclaimed. "It has been a great mystery how you managed it."

"That was easy," Paul replied, modestly. "However, in my last message to the Governor of New York, I requested a televisor, or at least an old style radio transmitter, so that we can carry on negotiations more rapidly. Now that I am able to talk to you I would take it as a great favor if you would operate the transmitter when it arrives, and speak for me. You are known and can bear

out the truth of the statements I have made."

"Sure," Jack said, "I'll be glad to do it. I would like to see your ideas carried through peaceably, for I realize you can help us as much as we can help you."

Paul glanced up at the sun. "Carry this machine down to the water for me. It is time they were shoving off from the other shore with that radio equipment."

"I'll carry you, too," Jack suggested boldly.

"Perhaps it would be better if I continue to fly—as I am accustomed to do," Paul replied dryly.

WHEN they reached the shore of the island Jack and Nera could see a boat, with two men, leaving the rocky point. Other people stood on the shore. Slowly the craft drew closer, rowed by one man, while the other steadied a large box, balanced on a thwart near the stern.

"Is it safe to land?"

"Sure. Come on," Jack called in reply. The boat resumed its slow progress. Two grim, white-faced men stepped ashore.

"We were ordered to leave this transmitter here. Take it out, we want to get away, before something happens."

"Help me lift it out then," Jack demanded, seizing one end of the cargo. A moment later it was on the sand. Suddenly a wasp settled between the two visitors.

"What's that?" the boatman was startled.

"That's Paul, Dictator of the Myriad," Nera replied.

The men cursed softly, stumbling in their haste to shove off. They were plying the oars frantically when Paul spoke through the frequency changer.

"Jack and Nera, my scouts tell me other people are coming. Tell them that they land here at risk of their lives. I want to give them fair warning; if they land then, I shall have no mercy on them." He was on his wasp and away before they could answer.

Motorboats and rowboats were converging on the island. Paul shouted loudly for them to keep away. Two turned back, the others came on. Men crowded each craft, their heads covered with some sort of netting and wearing gloves and heavy clothing.

"Can't stop us," one burly individual called confidently. "We are all going to land to get some pictures and make a visicast. Boy, won't this be a story!" Then the first boat grounded on the sand.

Paul suddenly appeared out of nowhere and stood beside the machine. "Warn them once more," he directed. "They die if they don't leave immediately."

Jack shouted the warning, unheeded, for the men continued to land.

"Tell that dictator to get out of the way, wherever he is. We are landing and mean to stay," one of the men called back and others nodded agreement.

Then, almost instantly, tiny forms swooped out of the void and curious little white clouds of gas formed in front of the landing party. They swayed, tottered, fell—lying rigid in death. A few, still in their boats, were allowed to escape.

**I**T was late in the day when Jack and Nera, following the printed instructions, had the transmitter ready. Other hostages had helped to carry it to the center of the island, near the hidden colony of the Myriad.

Jack and Nera took turns calling

Albany, according to the instructions with the apparatus. After a few minutes the call was acknowledged and two-way communication was established. Mr. Tillson's voice came through the ether from the city, then Mrs. Gregson, Nera's mother, anxiously wanted to know of her daughter. As soon as the parents were satisfied of the safety of the kidnap victims, Paul was ready to dictate a message.

"Tell them they have until tomorrow noon to meet our demands," he directed. Jack relayed the order.

"The Governor won't listen to it," Mr. Tillson's voice came clearly back. "We almost rioted in the Capitol Auditorium at the meeting this morning. The Governor insists that the Myriad be dealt with as the government now deals with kidnapers—no quarter and no ransom paid. In other words, he has already issued orders to blow up the island. We have insisted that he wait until this means of communication could be completed; we are fighting for your lives, my boy, so don't give up hope."

"That's the kind of man we elect to rule the state!" Nera was furious. "He will have us all killed, rather than give the Myriad a few pounds of chemicals and things they need. Get him to the radio—I'll tell him what I think of him!" She sank to the ground and burst out crying.

Communication continued. Sometimes Jack talked to Executives of the various Governmental and State Departments. In the meantime parents and others were trying to get a ruling from Washington to save the island and inhabitants, large and small, from destruction. The Secretary of War, a crusty old martinet, grown ancient in the service during years of peace, argued for utter ex-

tion of the island and even the lake and surrounding countryside, prisoners and all. The President hesitated—and did nothing.

Jack talked far into the night, reiterating the demands of the Myriad for adequate stores and food supplies, in return for priceless knowledge of bacteria and other minute forms of life, which the dictator promised to furnish to any designated scientific bodies.

THE world demanded particulars of the ant-like race. With Paul's permission Jack broadcast extemporaneously, telling something of the history, the struggle for survival and the appearance of the little people.

Mr. Tillson spoke again, after a long absence from the microphone. It was after midnight now.

"Jack, my boy, I have been away, trying to find what the State and Federal governments really intend to do. I think they are going ahead with plans to destroy the island. Get away, my boy, if you can. They plan to bomb at daylight and . . ."

Jack strained his ears, but the voice was cut off. Then another man spoke, smoothly, almost soothingly: "Your father has left the room, Mr. Tillson. Nothing to be alarmed about, nothing at all. Please ask Dictator Paul if he has any other message for His Excellency, the Governor."

The young man knew his father had been forcibly removed from his announcing position at the microphone. So it would be death, after all. Nera was lying near his feet. He hated to wake her. But she should know; perhaps have an opportunity to speak to her mother before the end.

"I heard the conversation," Paul

remarked, breaking the deep silence. "Switch off the transmitter. I want to talk to you." Jack did so and sat down, his back against the rough trunk of a tree.

"I managed to adjust the voice frequency changer so that I could listen in. Your father was right—they mean to destroy the island. I had hoped we might reach an agreement, but it seems impossible."

"You could, I'm sure you could—dealing with scientists instead of politicians."

"Perhaps you're right, Jack."

"Except for Nera," Jack said glumly, "I've about reached the point where I don't care very much if they do finish me off, along with the island. But you little folks can escape, can't you?"

"More about that later." The voice of the dictator came to him out of the deep shadows, inky black where the moon did not strike. There was a silence then the voice went on:

"Listen to these final instructions, for this is the last time you will hear my voice. Let Nera sleep for 30 minutes. Be sure of the time, better look at your watch now. At the end of half an hour waken her and take her down to the beach. No one will stop you. Enter the water and swim to the mainland and keep on going. You will have time enough to get ten miles away by daylight, or even farther if you can catch a ride along some highway. You have been a friend, Jack, you and Nera too. So I am giving you your liberty. You have our history and our viewpoint; who knows but it may lead to a closer, more friendly feeling between the two races at some time in the future? I only hoped it might have been now."

"That's right," Jack answered. "Part of your race will not be

harm. I was forgetting about your other cities."

Paul chuckled. "We shall all live, don't worry about that. By the time you are ten miles away I and my people will be a hundred miles from the island. Now remember—30 minutes from now, then make your escape."

"How about the others, down there on the beach?"

"Never mind about the others. They are a bunch of apathetic, addled-brained sheep—no help and no good."

There was a pause. Then Paul continued, "After all, though, they are your people. Lead them away with you, if you like. Now—good-bye and good luck."

Jack said good-bye and waited but heard no answer. Then he made note of the time. Just 2:15. Again he settled himself against the tree. Nera cried softly in her sleep, then lay still at his feet.

**T**HIRTY minutes dragged by at last. Nera waked instantly, but protested softly and stumbled over the uneven ground as they moved toward the beach. On the moonlit silver sand they saw two groups of motionless forms. Those to one side were grim in death; grotesque, with ghastly veils over their heads. Gloved hands clutched at the emptiness. The others, fellow-prisoners, were sprawled uncomfortably in all manner of positions.

"What's that?" Nera whispered.

Then came the sound of rapidly beating wings, an insistent drone that rose in volume with each passing second. Then across the bold face of the moon a row of tiny dots sped swiftly out over the water. There were scores, hundreds. Then they were gone. It was the Myriad, flying from Gernack, leaving their city forever.

The girl was wide awake now, so Jack told her of Paul's gift of freedom to them.

"He's a bigger executive than any we have," she replied, paradoxically.

They wakened the others, finally convincing them they were free. Then there was a stampede for the water. Jack and Nera struck out to one side, swimming steadily through the calm night. The moon's reflection broke and danced as the swimmers ruffled the placid surface. They landed to the south of the others and went on up the hill, then down, looking for a road. The ground was unfamiliar, broken, with tangles of dense brush. They made slow progress for they were both very tired. There was no road where it should have been, but they kept on, away from the lake.

Hours later, struggling up an embankment skirting a shallow valley, lights swept forward. Voices came to them as a car slid smoothly to a stop. It was almost daylight now, the up-flung gray of an eastern sky.

"Where is that lake? We are scientists looking for the Myriad. We must get in touch with young Jack Tillson. The government decided to let us talk to Paul and his people—learn from them.

"When did you start?"

"Just before dark; we got lost. But the lake must be somewhere around here."

Jack laughed hollowly. "Sorry, men, but the government doesn't know its own mind. After you started it was decided the island and the Myriad were to be destroyed."

"You don't say! What about the prisoners?"

"Oh, the Governor thought it best to kill them, too. What are a few citizens, more or less?"



Eager men sprang from the car. "Are you positive?" "How do you know all about this?" "Who are you?"

Jack told them. Soon he and Nera were seated gratefully on the deep cushions and the machine sped homeward. The two adventurers were unaware, until late afternoon, that the island had been spared. They rested in their homes, undisturbed except for a brief visicast made in response to insistent demands.

At dawn the following morning Jack woke suddenly. In the half-fog of sleep he thought he heard the hum of an insect. Perhaps he had been mistaken, but on his pillow there was a note. He picked it up and stepped to the window for better light.

"Dear Jack," it read, "I have found one thing for certain. I am no match for your politicians—not yet. The threat to blow up the island and Gernack, along with you and the others was pure bluff. Cleverly staged, I'll admit. Well, it worked. You as well as the other 'prisoners of war' are safe in your homes. So the Governor

should be satisfied, if not well pleased with himself. So this first encounter goes to the Big Race.

"Gernack was evacuated without a single accident. We have found safety where your people will never find us. Still, we want to make some treaty with your race, along the lines already suggested. Perhaps it may be accomplished in the future—perhaps you can help us. I have only a few seasons to live, too brief for what I must accomplish. But the Myriad will live, grow and prosper, I know.

"Perhaps you will never hear from us again. But I think you will. The final decision remains with our Central Council. Our plans will be made more carefully next time. The progress of the two peoples lies in mutual cooperation. If we can only make your race see it! When next we contact you—if we ever do—it will be to beg your personal aid. Until then, goodbye. (Signed) PAUL."

"And you'll have it, too!" Jack spoke the words softly, and his fingers gripped the note tightly as he gazed, unseeing, out the window.

THE END



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## PROBAK JUNIOR



# "When Atlantis Was"

By H. F. ARNOLD

## CONCLUSION

*The story of the adventures of the "McGinty" and of their intercourse with the beautiful beings is told quite entrancingly in the concluding portion of the story.*

### What's Gone Before:

Our story is distinctly divisible into two parts. The first part has told us of a fleet of United States Navy ships, including a very fast Destroyer which turns out to be the principal feature of the story, carrying the characters through a series of wonderful adventures. At first everything seems as it ought to be, practice maneuvers are going on and the Destroyer the "Farragut" is taking her part in a perfectly normal manner. A smoke screen is ordered and the "Farragut" called affectionately the "McGinty" by her crew dashes into the smoke screen's pitchy darkness and eventually emerges into broad daylight and loses all track of the fleet. The commander finds himself in the water, not knowing how he got there and the mysteries of the story begin. He is rescued and the "McGinty" finds everything so strange and only to be accounted for by her being in some past geologic age. In spite of the utter mystification of her crew and officers, she proceeds on her way

and at last finds herself in what was afterwards to be the harbor of New York. She finds shelter there in time to escape a violent storm. It is determined that there must be an exploring party to investigate their land-fall. They find themselves on what was to be Manhattan Island. They are armed for defense and make what may be called some narrow escapes from animals of the geologic ages. One of the party succumbs. They encounter a huge saurian, an indication of what they may expect to find in what is really a prehistoric era. A great air vehicle comes down out of the sky and makes a landing and a most interesting lot of passengers are released from her cabins, many of them women. They have come from a distant planet and the sailors, true to the nature of the animal, are greatly attracted by the beautiful arrivals. They make their acquaintances, manage to pick up something of the language and what happens next will be told in this issue.

As they stooped for the body there was the sound of a shot some distance ahead and the scout came running toward them from the upper end of the clearing.

"Lieutenant," he gasped as he approached. "Come quick! I've just shot a man!"

"Impossible," snorted the commander, but signing to one of the sailors to set up the machine gun and guard the body of Morton, he set out with the rest of the party in the direction of the advance.

It was true. Flat on his face in a

little glade some four hundred yards from the scene of their battle with the lizzard was the figure of a man. The body was unclothed, almost hairless and although of a deep tan was undoubtedly white.

"Where there's men, there's women," said McSaunders, turning the body over with the butt of his rifle. Beneath the body was a large and heavy battle axe of crude flint. The corpse had a bullet in the back.

Morgan dropped to his knees by the savage and made some quick calculations.

"No, Mac," he said, at last, "this isn't a man. Or rather it isn't a man of any race that existed in our day. Look at the proportions of leg length to arm length. And look at the size. Man, he's nearly seven feet tall."

"What is he then? He looks human to me."

"Oh, he's human enough all right," said the commander, dusting off his knees as he rose to his feet. "He's Cro-Magnon, member of an extinct race, that died out some 25,000 years ago, and nobody ever knew that his race reached the North American continent."

"If this is it," said McSaunders grimly, "I'm beginning to think it's nightmare land instead. Let's get back before we have to fight off a unicorn or a diplodocus or something."

"I think we'd better," Johnny decided. "Advancing through this sort of country is too dangerous. We'll send the plane out to scout. Fellows like the lizard you blew up can only exist in low lying swamp land. We'll look for higher ground."

Leaving the body of the Cro-Magnon where he fell they started the return to the posted machine gunner.

"How did it happen, Wheeler?" asked Morgan interestedly.

The scout, a small man, not over five feet six in height but well and broadly built had seized on the war club of his late opponent and had insisted on bringing it with him as a souvenir.

"You see, Sir, it was this way," he began. "Lieutenant Malmson had told us, before we started out, that if we saw anything that looked human we were to try not to hurt it and to bring it back alive. So I tried."

McSaunders and Morgan laughed almost hysterically. With the terrific

strain that they were under the idea of this pygmy Jack-the-giant-killer deliberately planning not to hurt a Cro-Magnon giant, was amazing.

"You weren't precisely successful," said Johnny.

"No, Sir, I wasn't," said the scout, "but it was all his own fault. You see, Sir, I met him back there in the woods and he let out a yell and started toward me with this sledge hammer here. I didn't want to hurt him so I ducked under his guard and let him have the butt under the chin. Not hard, just enough to knock him out. He went on past me and flopped on his face.

"Just then I heard an explosion and the fifty calibre began. Well, I kicked him a couple of times and we got up and we started to go help you. I had my sticker against his back so he couldn't turn, when darned if he didn't start to run. He oughta known better."

"And then what did you do?" gasped Mac, his face red with laughing.

"Why I followed regulations. I shouted 'Halt' three times and then let him have it."

"Good work," approved his commander ignoring the now purple faced engineer. "You did right. I'll explain to Lieutenant Malmson."

THEY found the situation as they had left it at the machine gun emplacement and bringing with them the body of Morton started their return to the landing. As they neared the log walls they were greeted by a crackle of machine gun fire.

"Another lizard?" demanded McSaunders.

"No," decided Morgan, "they're shooting toward the river. Hurry, perhaps they need help."

As they broke into a run, the firing died down and then ceased entirely. Jorgensen, whom Johnny had left in charge of the covering party, stepped out to greet them.

"Seen any monsters?" demanded McSaunders.

Jorgensen shook his head. "Not precisely, Sir. We've been attacked by crocodiles, although they are certainly big ones."

He explained, as they neared the land spit, that a dozen or so crocodiles had evidently been in the habit of taking their daily sun bath there and resented the presence of the gobs. A brief set-to had followed after which the crocs drew off with casualties.

Johnny forbade any more unnecessary firing and after burying the body of Morton they re-embarked for the "McGinty," where they found the crew busily constructing mosquito-proof shelters to protect themselves from the hordes of insects that were attacking them.

After baths and dinner, it was decided to drop the "McGinty" down river to avoid the flies and any possible night attacks. As the destroyer slipped down stream with the tide, which because of the nearness of the moon had proved tremendous, the two officers of the landing party gave an account of their adventure.

"I reckon it's up to us," said Ellington as the story was finished. "The plane's ready and set to go. So tomorrow if you'll assign us a direction for reconnoitering we'll push off at dawn."

It was the dark of the moon and the McGinty had been carefully tied up for the night near the river mouth before Johnny and Hugh Malmson had a chance to relax on the bridge deck. Morrison and Ellington had

gone down to fuel their plane and McSaunders had gone forward with them to give his usual ironic advice.

"What's the best thing to do, Hugh?" asked the commander finally. "Shall I let them go? If they should get forced down we'll probably never find them and yet land expeditions, as today's affair proved, are damnably dangerous. I'll never forgive myself for poor Morton."

"It's a chance we're all taking, Johnny. They've got to go, certainly. We've got to establish a permanent base where it's safe. We must get some idea as to where we are and the nature of the terrain. Say, what's that?"

Behind them, over the crest of the headland, a faint glow had begun to appear in the sky.

"The moon, naturally," said Johnny, and then realized that for the next few days there would be no moon. "A meteor," he hazarded.

Malmson shook his head! "No it isn't. Listen!"

He cupped his hand to his ear and now both men heard distinctly a low rumbling roar.

"Thunder? An electrical storm?"

Malmson held up his hand for silence.

As they waited the sky in the east grew brighter while the roar each instant increased its volume, louder, ever louder. Deck-lights went on all over the "McGinty," as members of the crew, awakened by the tumult, started running to quarters without orders.

And then a hissing tumult which queerly seemed to stutter, filled the entire sky and a long narrow cylindrical object so nearly red hot that it scorched vegetation raced low over the headlands and darted above the funnels of the McGinty to disappear

into the west. It was followed in its passing by a comet of flame.

As swiftly as the quarter mile long cylinder had appeared it vanished and the night was again deafened by the howls, bellows and screams of the frightened monsters. Lieutenant McSaunders bounced up the companionway to come to an exaggerated attention before them and salute.

"Lieutenant McSaunders has the honor to report, Sir, that the 1950 model mail rocket, London to San Francisco has just passed over. And all's well."

He collapsed into a chair and fanned his heated face with his cap.

"Boy, this combination of Cro-Magnon and 21st Century is getting me down," he finished.

Ellington and Morrison were two jumps behind him.

"Did you see it?" shouted the former "Lord what a sight. A rocket ship a quarter of a mile long and hitting 800 if she was making a mile an hour."

"And she was in trouble, too," added Morrison. "Her port stern rockets were barely flaming. I'll bet she's down within two hundred miles. And did you notice how the repulsion rockets on her bow were hitting it off. She was braking for all she was worth. And great guns, what power."

Malmson got to his feet at last. "Wait a minute, all of you. That must have been a meteor. It must have been."

Ellington laughed scornfully.

"Meteor, nothing. I've sat in on too many rocket design experiments to be kidded. But she's far and away ahead of anything we've got or expected to have for fifty years. And Morrison is right. She was in trouble and coming down. Let's get out the

ship and follow her. Man what a chance." He turned to shout an order at a group of sailors.

Morgan interrupted.

"Wait a minute, I'm in command here and we'll have no night-flying. If that was a rocket and you're right about its coming down, there's no hurry. We'll be able to trace it in the morning by the forest fire it'll start. Sit down and talk this over."

THE conference continued until Johnny finally called a halt in exasperation. Ellington, Morrison and McSaunders were confident that what they had seen had been a rocket ship, while Malmson persisted in his meteor theory. The younger men were sure that by some miracle they had been transported back to their own age or one slightly in advance of it, but the technical expert ridiculed the idea as out of the question.

"Just listen to those beasts," he reminded. "If the earth really was settled by civilized men capable of building rocket-ships, do you suppose they would let such monstrosities as those continue to exist. Use your heads."

It was then that Morgan stepped in and exercising his prerogative as superior officer, stopped the discussion. But his own uncertainty of mind possibly explained why, when Ellington took off on the reconnaissance flight at dawn the next morning he had as a passenger in his front cockpit Lieutenant John Morgan U. S. Navy. Johnny was going to see for himself. And when the two seater lifted from the step and they were high enough to make out the contours of the country ahead, he was glad indeed that he had come. He reached for the communication mouthpiece and leaned forward.



"Notice anything unusual about the country ahead?" he queried.

Ellington took a long look over the side and then shook his head.

"You probably wouldn't but I've been through that gap ahead too many times to be mistaken," shouted the commander. "It's six thousand feet in the air now but someday that gap ahead there will be the Narrows. We're just about over the lightship and in ten minutes we'll be over Hell Gate and the site of the Statue of Liberty—and over Manhattan. It doesn't seem real but I know where we are."

Ellington swung the Grauman in a long curve to pass over the contours of Long Island, studied the topography for ten minutes of their flight and finally nodded his head. It seemed incredible but it was true.

Then he jazzed the motor and pointed far ahead where rose a tiny wisp of smoke.

"And if that isn't our visitor of last night what do you make of it?" he demanded.

In another ten minutes they located the smoke toward the uptown end of Manhattan Island just about where Riverside Drive goes overhead well uptown, and then Ellington nosed the plane down to look for signs of their visitor.

The traces of its passage were followed easily enough. The rocket ship, if such it was, had come in hard and hot, leaving an immense scar on the earth and a trail of smouldering forest where it had scraped the tree tops. It rested now in the middle of a charred meadow, a quarter mile length of dull lifeless looking metal. Even at that altitude it was evident that it had been created by some intelligent mind, as the traces of the stream lines of the rocket jets were

obvious, although no portholes could be seen. Ellington cut his motor again and shouted:

"Plenty of room to put the Grauman right down beside her if you want to take a chance? How about it?"

Morgan considered. It was possible enough that the crew of the rocket might, if any of them had survived the impact of landing, be unfriendly. On the other hand they had selected, accidentally or otherwise, the only safe landing field in miles and any attempt to fight a pathway through the jungle would probably result in contact with definitely unfriendly beasts.

"Why not," he shouted. "Put us down at the 72nd street subway station and we'll walk over."

It seemed strange to be picking out location spots on a Manhattan Island covered with tall trees and wavy meadows. A sort of homesick jest at the fates that had brought them there. As the plane rolled to a stop, Johnny remembered how many times he had covered this ground hurrying up to call on a girl in a hotel on 73rd street. It was a strange business this adventure.

Ellington had brought them to a halt near the nose of the ship, the propeller machine guns covering the long slim rocket. The craft, Morgan noted, had almost the same relation of length to breadth as the earlier Zeppelins. He motioned to Ellington not to cut the gun and they waited there for a long five minutes for the craft to show some signs of life. They noticed again the absence of any ports and wondered how the occupants managed navigation.

"She's still a little warm," said Ellington, finally, "perhaps they're afraid to come out."

"There's another 'perhaps' too and that is that they're all dead," said

Johnny. "She sure took an awful rap when she came in. I don't believe anything is going to happen. Cut her out, Ellington."

ELLINGTON snapped off his switch and the two men climbed out and with machine guns at the ready started for the rocket.

Suddenly Ellington raised his gun and cut loose with a terrific clatter and Johnny Morgan jumped as a piercing scream sounded from overhead. It was only when a dark shadow fell across his path and he tried to jump two ways at once, like a chicken trying to dodge a hawk, that he was aware that the always sky-conscious birdman had fired not at the rocket but into the air.

Almost at the same instant he heard the flapping of tremendous wings and a huge object struck the earth with a thud, stirring up a hundred yard cloud of ashes in the smouldering rubbish before him.

"Run," yelled Ellington. "Quick! Under the edge of the rocket!"

As they jumped to get under the protecting overhang of the bulging sides of the strange ship, Johnny was conscious of a pale blue radiance which seemed to be emanating from the rocket into the atmosphere around them. They waited for several minutes, machine guns questioning for a target, while the dust slowly settled and visibility returned.

"Good Lord, where did they go? What became of them?" queried Ellington as soon as they could see with some clearness.

"What became of whom?"

"Our air-minded friends, of course. Don't tell me you didn't see them? There must have been a hundred at least. They were diving on us when I got the leader. He cracked up over

there. But what became of the rest of them?"

The pale blue radiance had vanished, Morgan noted as the two men stepped from the side of the rocket and gazed aloft. The sky was clear and blue and unoccupied. They walked over to the fallen object.

"One of our old friends, the pterodactyls," said Johnny, identifying it instantly.

"Then it ain't a machine? It was alive?" Ellington looked disgusted as Johnny nodded his head.

"Hell and I thought we'd met some brother airmen."

Johnny remembered then, that he had neglected to tell any of his staff of the strange monsters that had flown over the "McGinty" that night at sea. In a few words he acquainted Ellington with what he had seen and the two men examined the huge lizard curiously. The wings were ribbed, batlike structures covered with scales, while the body was armored as was the neck and heavy toothed head.

"Nice little beastie," said Ellington lifting one of the wing tips. "But he must have some motor to get off the ground with all that weight."

"Probably he doesn't take off from the level," Johnny explained. "With those claw-like feet he could climb a rockpile somewhere and start soaring. They're not very fast in the air."

"He gets up somehow," decided Ellington, "but I'd still like to know what chased 'em away. Hey, our bigger friend over there is making us welcome or something."

A narrow gangway had dropped down the side of the rocket ship and they started to run across the hundred foot stretch which separated them from it. As they neared the ship, the commander stopped suddenly and put out an arm to halt Ellington.

"Wait a minute," he ordered. "There's something coming out."

They stopped instantly and trained their submachine guns on the dark hole in the ship from which an object was slowly emerging into the light. The figure advanced slowly and evidently with the expenditure of great effort. As it came into the full light of the sun they saw that it was a man crawling on his hands and knees.

"He's been hurt," shouted Ellington, dropping his gun and hurrying forward. Johnny reached his side as he shoved his arms under the shoulders and aided him to his feet.

"Crackup get you, old chap?" he was demanding. "Where yuh hurt?"

The stranger shoved him away and leaned against the wall of the entrance as he shook his head. For an appreciable moment he stood there without speaking, regarding them with a fearful and excited awe. At last he seemed to convince himself that what he saw was really there for he raised his arm, palm of the hand outward, in greeting and said something in an apologetic tone in a language they had never heard before.

"He's white all right, but he don't talk English," said Ellington whose specialty that morning seemed to be the saying of the obvious. "How you feeling, old fellow?"

The man's movements were certainly those of a person of great age, although his features were smooth and unlined. He delivered a short address, probably a greeting, after which he bowed and invited them with a gesture into the interior of the ship.

"He's asking us aboard," said Ellington, "let's go."

**T**AKING their weapons along, to which the stranger seemed to have no objection, they helped him

to re-ascend the gangway and enter the interior. The ship was well lighted with a pale white radiance which shone equally from walls and ceilings. It was divided into a number of compartments and the huge metallic rings, which made up the inner skin were heavily braced.

Helping their guide toward the bow which was the direction he indicated, they passed through several sizable chambers on the floor of which were bodies of men and women, either dead or unconscious, for they failed to move. Suspended from the walls in hammocks were many other bodies, some of them of persons alive and conscious for they were conversing with each other in the same melodious, almost sing-song language, in which their guide had addressed them.

"Funny way to travel," commented Ellington as they took a moment to make a quick survey of the rooms as they passed through. "Those hammocks are suspended on some sort of springs. They must have anticipated a shock, but not so much of a one as they got. Look, a lot of the springs broke when they crashed."

Indeed at that moment they were compelled to détour around several bodies still swathed in the silken mesh of their shock absorbers.

"In this heat, the place will have to be cleaned out quickly," Johnny whispered. "They had damned good heat insulation whatever it was, but now that the outer door is open this place will reek of death in an hour. We've got a job laid out for us."

He didn't say more for the guide had paused before a doorway covered by a silken hanging. He voiced a low query and a feminine tone answered him, obviously inviting them to enter.

"Office of the Commander," Johnny

guessed and leaving Ellington to assist the injured guide he pulled aside the hanging and stepped inside. It was a large cylindrical apartment but it didn't seem to have any walls and for a second Johnny thought they had made a mistake and stepped back into the outer air. Then he realized that they had been brought into the control room of the cruiser and by some method the solid walls reflected the scene of the outside world in perfect proportions, sky, earth, ahead and to the rear, all in perfect relations. The illumination in the apartment was the white light of sunshine but slightly subdued. In the center of the strange room was a couch, on which rested a body in the remains of one of the silken slings.

Johnny stepped forward, guessing that he was in the presence of the commander, and bent low over the couch. With surprise he realized that the commander was a woman and that he was staring straight into the violet eyes of the most beautiful girl he had ever seen; a long, slim blonde girl with closely clipped hair and her eyebrows and lashes tinted to emphasize her eyes.

She rested her arm across a huge bank of pushbuttons and extended a hand to him as though she were very weak.

"We're happy to have found you in time," he said, and then did the most un-American act of his brash young life, for he turned the hand over and pressed his lips to the velvet smooth back of it. The "why" of his action he never attempted to explain, even to himself.

Clearly she was surprised and startled, for he felt her instinctively struggle to jerk her hand away from his as she tried to sit up. He stepped back and bowed and then, as she con-

tinued her effort, he jumped forward to support her.

"I'm sorry," he said. "I didn't mean to displease you. Please forgive me." As she persisted in trying to release herself from any contact with him, he piled pillows to support her back and then moved away. She sensed the friendliness of his voice for, after looking at her hand quizzically for a moment, she smiled at him and pointed at herself.

"Vania," she said, and pointed at him.

"Johnny Morgan," he said and pointing at Ellington, he named him. Ellington bowed and the girl pointed at their guide and said "Tsar."

"I guess that dispenses with all the formalities," said Ellington who had been regarding the previous scene with much amusement. "Madame, you are sure a peach, and how my friend, McSaunders would have liked to be here."

"Quiet, you jackass, or I'll send you back to the plane," said Johnny. "Let me handle this."

"She didn't seem to care for your 'handling'" grinned Ellington, "or perhaps I was mistaken."

Not having an effective answer Johnny turned again to the girl to find that a case had snapped out of the wall beside her and that she was motioning him forward. He helped her remove the pile of papers it contained and at her gesture seated himself on the side of her couch. She must have been indeed weak for she relaxed against the pillows and with a final effort placed his hand on the papers.

"Golly," said Ellington, "She fainted. Get a doctor and some water quick."

"Where?" asked Johnny practically. "Nothing is going to happen to

her for a little while. Let's look at what she was trying to show us."

The first map on the top of the stack was that of the solar system showing the sun and nine planets in their proper orbits each with their present number of satellites. A mark had been added at the side of the satellite of the third planet evidently by another and later hand.

"Lord," said Johnny, "now I know we're all crazy."

"Why any more than we have been?" Ellington demanded as he and the man known as Tsar came closer to inspect the map.

Johnny pointed at the satellite of the third planet and then at Tsar, who nodded.

"They're trying to tell us they came from the moon," said Johnny.

"Well, why not? It's only a hundred thousand miles now. Even Wiley Post or Roscoe Turner could have flown that far in a month, and this baby could do it in three or four days or less. I don't see that the idea is screwy."

Without answering, Johnny turned to the next map. It was a contour map of the moon as they had mapped its surface in the last few days. Another mark had been added near the edge of what they had decided was a dead sea on the "dark side."

"That must be where they came from," decided Johnny. Tsar nodded again and said something in his soft voice.

THE third sketch was a beautiful contour map of the earth, which Johnny recognized instantly although the outlines of the continents were much changed.

"That's us," he said. "And wow! Here's something I didn't expect." Without waiting to explain he passed

on to the next picture. It was a drawing of the interior of the space cruiser, for that was what the rocket ship must be. A mark showed the commander's control cabin where they were then standing. The next picture showed a man, dressed like Tsar, standing at the open doorway and beckoning to a crowd of strong looking men. The next picture showed the same men carrying out broken hammocks and their occupants into the open air. The last in the series showed them back in the ship, ministering to those still in their hammocks from rubberlike bottles which they plucked from wall brackets beside each hammock. The next sheet was blank.

"They're certainly thorough in telling us where they came from and what they want us to do," Johnny remarked and turning to Tsar he nodded in comprehension. Once he found that his requests had been understood and would be obeyed, the man was so overcome by the strain of what he had undergone, that he slumped and would have slipped to the floor but for Ellington's arm.

"Gee, but he's light," remarked the pilot as he eased the body to the floor. "I'll bet he doesn't weigh more than forty pounds."

"Why should he?" Johnny demanded. "Where he came from they have only one sixth the gravity we have. I'm surprised he can move at all. But come on. This is our busy day."

He reached down by the side of Vania's couch and found one of the rubber bottles. It contained a light and very aromatic liquid, smelling of a spice resembling cloves. The Commander slid his arms under her shoulders again and, following a hunch, held the bottle under her nose and let her inhale the aroma. Her eyes opened and she smiled at him and,



when he held the bottle to her lips, she drank eagerly and deeply.

"Correct procedure, evidently. First thing they want us to do, as I figure it, is to remove the dead to the outside and then aid those who are still in their hammocks and alive."

Between them they carried out, and laid, in long rows close to the ship, the bodies of 48 dead. Alive, in their hammocks and able to take nourishment were 82 women and eight men. Three other women were so badly crushed that death seemed inevitable. Most of the dead were found in the corridors and what must have been the engine room of the space ship. All except five were wearing what was evidently a uniform and were men. There were no arrangements made for slings to protect these men in the event of a crash.

"Good men," said Johnny, as they carried out the last of them. "These were the crew and if they cracked up they expected to go down with their ship—and they did." He touched his hand to his helmet in a brief salute before they turned to re-enter the rocket.

"I make it we have 83 women and 9 men aboard, who have a chance of living including Vania and Tsar," said Ellington. "Well, now we've got 'em what are we going to do with them?"

"It's only 15 hours," said Johnny, "and we've three hours of daylight left so let's waste a little of it talking the situation over with Vania. We can't leave these people here, so there's only one thing to do."

"Do you call it a waste of time talking things over with that dame?" Ellington demanded. "I wouldn't. You seem to have the inside track, so go ahead. I'll see what I can do to make the injured more comfortable."

JOHNNY retraced his steps to the control cabin where he found Vania much recovered and in eager conversation with Tsar. She looked up as he entered. He noticed that once again she was greeting him with extended hand. This time he took the little palm in his own capable fingers and stood looking down at her with friendly interest. She was not tiny, he noted with some surprise, but only built with extreme lightness. Her slightness seemed to be of bony structure rather than of muscle. Her complexion was creamy, rather than a pure white, and her eyebrows had been dyed a slightly darker shade of violet than were her eyes. She must have been about five feet two inches in height and his first impression persisted that she was the most beautiful woman he had ever seen. She gave an impression of competence combined with fragility, the sort of a woman a man would want to take care of.

He gave her fingers a friendly little pressure, and it was only when he caught the flicker of pain in her eyes that he remembered that his strength was some six times as great as the average moon-man, and that he must have hurt her. He squeezed his own fingers in his other hand and apologized with his eyes, and she evidently comprehended for she smiled at him again.

Tsar had watched this little tableau with an interest beyond any importance that it could possibly warrant, and Johnny thought he was pleased with the termination of the episode and wondered why. But there was no time to waste in speculation. He sat down again on the edge of the couch and reached in his pocket for a pad and pencil. Picture writing wasn't a bad method of communication, he thought.

While they watched, he drew a quick sketch of the "McGinty" and pointed to the ship and then to himself. They nodded. He pointed at the destroyer and then through the transparency which, for want of a better word, he termed a window, at the Graumman scout airplane outside. They nodded again and Johnny pulled out his watch and indicated the second hand. They watched it complete a full revolution and he showed that the minute hand had moved also. They caught the idea again and when he indicated thirty minutes, pointed to ship and to plane and then to the space cruiser, he was sure that they understood.

He next drew a quick sketch of the plane and another of himself and Ellington in their flying suits carrying Lunarites to the Graumman. He pointed at the plane out of the window and then to the sketch of the "McGinty." They again understood the idea and immediately there was a violent disagreement between the two. While they argued, Johnny drew sketches of such pre-historic monsters as he could remember and a couple he imagined. He drew a man beside each of them to indicate the proportions. He sketched these in a circle and made a drawing of the space cruiser inside it. He showed them the picture and they both nodded, convinced that it would be dangerous for them to stay with their ship.

Last of all, Johnny took the map of the earth they had given him and indicated a spot on its surface, pointing from the sketch of the "McGinty" to the spot he had located. Again they nodded.

It was enough. He stood up and pointed at Tsar and then at the Graumman to indicate that he would be the first Lunarite to make

the trip. There was another disagreement ending with Tsar's nodding acceptance. Johnny assisted him out of the control room, pausing to bow at Vania at the doorway, and indicate that he would return, a courtesy which obviously pleased her.

They found Ellington in the middle of a row of hammocks aiding the helpless Lunarites, and Johnny explained his decision.

"We can't let them stay here," he said, "or, in their weak condition, men or beasts would kill them off or they'd starve to death. Our best chance is to ferry them to the 'McGinty.' It'll take two or three days but we can't help that. I'll stay here for the present and you bring McSaunders over when you come in the morning."

"It's okay with me," said Ellington, "whom else do I take on the first trip? Does it make any difference?"

"We-e-ll, it ought to be a woman. Have you any preference?"

Ellington actually reddened.

"In the sixth hammock from the hatch, there's the cutest kid you ever saw—and she acts like she thinks I'm a big shot. Okay?"

"If she wants to go," Johnny said, "come on and we'll find out."

He helped Tsar down to the hammock whose occupant sat up easily as they approached. She was indeed a "cute trick" thought Johnny, and obviously she and Ellington were already friends. By earth standards she was about 19, a blonde as were all the Lunarites, men and women.

He turned to Tsar and pointed to the girl, to Tsar, to Ellington and to the direction in which he had indicated the "McGinty" was anchored.

Tsar shot a volley of words at the girl who looked at Ellington with increased interest and nodded her head vigorously. Just as an earth girl might

if someone invited her out, Johnny thought. Ellington leaned over the hammock and picked her up in his arms, a procedure which first shocked and then amused her, and they hurried out the hatchway to the Graumman.

The two Lunarites regarded the ship with interest and when Ellington assisted the girl into his leather coat, helmet and goggles, all four of them laughed.

"Don't be rough, Ellington," Johnny cautioned, "remember these people have only about a sixth as much strength as we have, and are only used to a sixth as much gravity. Take it slow and easy, man!"

"I'd forgotten that," said the aviator, "but I'll bet I know one girl who gets acclimatized quick."

Johnny nodded. "With the whole crew of the 'McGinty' to baby her, she probably will," he said.

"Gee, maybe I'd better leave her for another trip," said Ellington.

"Get along with you," Johnny ordered, "and remember, nobody but McSaunders comes back tomorrow. And tell him to bring a portable wireless telephone with him so we can keep in touch."

AS he stood watching Ellington circle the field and head away from the space cruiser, he felt a moment of loneliness. It was the first time he had been entirely on his own, since that morning of battle practice. The responsibility was a heavy one and now he had some 90 odd invalids to increase the burdens of the "McGinty" and her crew. Well, he had broad shoulders. He shrugged and turned to re-enter the moon ship. There seemed to be no way he could close the gangway and keep marauding beasts out. He tried to shut the hatch but it was immovable. Finally he remembered

Vania and her row of push buttons.

With some difficulty he managed to indicate to her what was needed, and she smiled and touched one of the buttons beside her and nodded. Before eating any of the emergency rations which they had brought from the "McGinty," he decided to make a tour of the ship. Vania had so far recovered her strength that, when he indicated his intentions, she insisted on going with him. To his gratification she could not only stand alone, but was able to walk with only a hand on his arm to steady her. And so they started, precisely, he thought, as though they were strolling down an esplanade before dining in some expensive hotel.

For clothing she wore a loose fitting white jumper of some silk material with insignia on breast and arm. Her hair was clipped and she wore no jewelry or adornment of any sort except a dialed device resembling a wrist watch on either arm. Later, he discovered they were time and air conditioning indicators. From the deference with which the uninjured passengers and crew treated her, it was evident that she was not only the commander but some sort of a ruler as well. For they obviously loved her.

Several of the inmates of the hammocks had so far recovered, that they were able to move about and assist their fellow shipmates. Johnny was thankful for this, as he was not quite sure of the efficaciousness of the treatments he and Ellington had administered. The three badly injured women had already died, or perhaps they had been put out of their pain. There was no way of telling.

The two had started their inspection at the forward end of the cruiser and Morgan saw immediately that in all probability she would never fly

again. The bow plates had badly crushed when she hit, and the whole under row of rocket projectors was ruined. Before ending up on an even keel, she had skidded along the ground, as evidenced by the long scar he had noticed in the earth, and the result had been to crush in her keel plates badly. To fly, she would have to be completely rebuilt.

The ship had been constructed in three decks with a series of circular bulkheads running vertically, dividing it off into sections. The forward and stern rocket engines had been built full height of the ship and the fuel reservoirs for them had been placed between the inner and outer skins of the vessel itself. Much of the fuel, Vania indicated, had leaked out following the crash. He noted arrangements for rocket-projectors at the sides to keep the ship level or turn her in any desired direction, also stubby wings, which could be thrust out to increase the air support while in the atmosphere, and many other devices for which he could give no name or purpose.

Taken as a whole, however, he was greatly surprised to find that the ship was not as "different" as he had suspected. It was a great improvement over any similar vessel yet perfected on earth, but was not in any sense of the word a "visionary dream." McSaunders would probably have no difficulty in understanding the motors and power devices. It was the sort of ship considered in his own day, possible to exist in the 1950's and almost certain to exist by 1975.

Finally he realized that it was natural that the ship and its crew should be the way they were. Life on the moon had developed earlier but under almost similar conditions to life on earth, the natural laws were the

same, minds would develop in the same way. Why should he have expected anything strange and other-worldly? Similar conditions were bound to give similar results.

Another fact he noted was that this voyage so unhappily completed was not a voyage of discovery or exploration—it was a migration. One compartment of the ship was given over entirely to records, thin books bound in metal and printed on metal. The printing looked like a variation of shorthand.

Another compartment contained seeds and shrubs carefully packed for replanting. Still another was filled with livestock. He noted particularly a miniature sort of cattle with a hump on their back and a short stubby nose, several little animals like rabbits, and a woolly creature, that might have been the great grandfather of a sheep. The livestock seemed to have survived the voyage better than their masters, and most of them had already been relieved from their slings. Several Lunar men, easily distinguishable from the women by their heavier features and closer fitting costumes, were attending to their wants.

THE rough survey completed they returned to the control car and Johnny became conscious that he had not eaten since early morning "stand to." Almost shamefacedly he brought forth his sandwiches, chocolate, and thermos bottle of coffee, and, with an apologetic look at Vania, offered her a chocolate bar.

She looked at it curiously, but did not get its purpose until Johnny began to eat. Then she comprehended and laughed as she tasted it. Indeed she insisted on tasting everything he had in edibles and pushed one of her row of invaluable buttons, which

brought in a supply of Lunar foods.

She approved heartily of the chocolate, and likewise the peanut-butter sandwiches, but with a grimace expelled the bite of ham sandwich she tasted, into a very feminine handkerchief. The coffee also brought a wry look although the cream and sugar were both approved. The Lunar food, Johnny found, consisted largely of the liquid he had found in the bottles and a tough, pemmican-like substance made mostly of vegetables, which required lengthy chewing. Probably valuable for keeping their teeth in condition, he thought. They all had good teeth.

Coffee finished, he lit a cigarette, which surprised her again and made her choke before he could extinguish it.

"Now what?" said Johnny Morgan.

The answer was soon forthcoming. At a gesture from Vania, he came over and seated himself at her side on the couch and found himself thrilling to the touch of her fingers as she turned him so that he faced the foot of the couch.

The sun was setting and with a quick look outside Johnny noticed that a herd of strange creatures were approaching the cruiser. Curiosity drew them on probably. He indicated the herd to Vania and she smiled and nodded. She showed no fear.

"Stegosaurus," he said pointing out the queerly hump shaped armor-plate, forming a double crest on their backs, and the immense size. "We'd better do something. They're tough babies and one of 'em might ram a hole clear through us."

"Stegosaurus," she repeated pointing at the animals and then pointing at him, "Johnny?"

"Yes," he said, "Vania."

She smiled again and motioned for

him to pass her the table of push buttons. "What is this?" he thought, "Is she just quick to catch names or are we about to have a flirtation in the middle of a herd of dinosaurs?"

She pushed one of the buttons and again that pale blue radiance which he had noted at the time of the attack of the pterodactyls crept out from the side of the ship. This time it moved more slowly and seemed to surround them with an aura of protection. As he watched, the first of the reptiles reached the light-field and seemed to wade into it. As the ship was sound proofed, he could hear nothing but he could see that the stegosaurus stopped, as though he had hit something. The creature backed off and started to charge only to be thrown back on his haunches as though he had encountered a mountain.

"Gosh! They've some sort of a force field," he exclaimed, "and we were going to take care of these people who have enough power to stop a charging stegosaurus!"

Vania smiled at his words and touched another button and the outside world disappeared, leaving the two of them alone in the control room.

"Must get her to remember to turn that off before Ellington comes back at dawn. It wouldn't be any fun to hit that at 180," he thought, and without difficulty he conveyed the idea to her by means of his watch and the sketches of the plane and the "McGinty." Vania nodded again and patted him reassuringly on the shoulder.

"Okay, if you say so," said Johnny leaning back and making himself comfortable. "Go on with the show."

And a show it was as he soon discovered. Vania touched a button and the lights of the room dimmed while a series of motion pictures were thrown on the opposite wall. The oc-



cupants of the cruiser had evidently spared no pains to make any civilized citizens of earth they encountered understand the why and wherefore of their coming. The show began with a picture of the moon, evidently taken from a space cruiser some ten thousand miles from the surface and then skipped to a close "shot" of the surface of the moon, showing it as a thickly populated, well-watered group of countries, with herds of the miniature cattle and sheep, ornate cities and swiftly flying aircraft. Apparently there was only one human race, the blond whites, similar to the passengers on the cruiser.

**S**WIFTLY the scene changed, the seas were shown drying up, the cities being deserted, as the population moved closer to the receding waters. The ice caps of the planet disappeared. War broke out and man, using strange and deadly weapons, fought with man for possession of the vanishing water. The scene cut to a distant view of the earth, showing it as being extremely near to the moon and then seeming gradually to recede as the moon drew away. Next were a group of scientists making measurements with a queer machine and by similes of airplanes no longer able to fly, free balloons drifting inevitably downward, and other scenes showing complicated machinery which Johnny could not understand, they demonstrated the gradual escape of the air envelope from the planet. Then followed the coming of the first of the meteors with startling photographs showing how they struck the surface and dug their huge and eternal pits.

Last of all were shown the scenes of the construction of the cruiser with the group of scientists superintending its building and pointing from it to a

full earth in the sky above. The selection of crew and passengers by rigorous physical and mental tests from thousands of applicants was next shown, and last of all the loading of the ship with representative specimens of the best of flora, fauna and literature that the satellite had to offer. The picture concluded with the scenes of farewell as the scientists went from a giant telescope to the gangplank of the cruiser and bade adieu to the crew and their leaders, to Vania, Tsar and a tall, strong looking man, whom Johnny remembered to have carried out of the ship as a corpse that very morning. Throughout the showing the picture was accompanied by a low-speaking dramatic voice, which narrated the story in the Lunar language. The voice and the picture were so compelling, that long before the end of the account of the simple yet terrible tragedy with which earth itself must one day be faced, Vania put her head down on his shoulder and wept quietly with the muffled sobs of utter despair and even terror.

Johnny put his arm around her and patted her on the shoulder. Even if he knew how to say them, there were no words to console her for the tragedy of the approaching end of a race. His action was entirely impersonal. He was thinking only that these people were worthy; they had made the good fight and won to our planet and deserved the utmost in sympathy and cooperation that old mother earth could offer. He was proud that he was the man that was to be given the chance to aid, and to help them to save their heritage of knowledge from utter extinction.

When the screen went blank, he restrained her for a moment from switching on the lights; and sitting

there in the dark, just the two of them, he tried to tell her part of what he was thinking, and he thought somehow that she understood from his tones if not from his words. When he finished and she gently put his hand from hers to switch on the concealed beams, he found she was smiling bravely at him through her tears.

The show had lasted for hours, and he was very tired. She switched on the transparent "windows" for a moment and they saw that the clearing was deserted except for the blue radiance. He picked up the sketch of the Graumman to remind her that the rays must be shut off with the dawn and she nodded her head in comprehension. At her summons an officer whom Johnny had not yet seen, entered and nodded briefly at her orders. Johnny rose to accompany him when he left but she beckoned him back and motioned to a spot on the wide couch beside her.

"Maybe it's all okay on the moon," he thought, "but it's a little too sudden here."

He realized that she didn't wish to be left alone, so he drew a robe and a pillow from the low couch and spread them on the floor beside her. She seemed to understand for as he stretched himself on the robe she again extended her hand for him to kiss and the last thing he remembered as he grew drowsy was, that that same hand dropped off the couch and was resting gently on his hair.

And there, presently, in the glow of the blue radiance, in the cabin of that wrecked cruiser, they slept.

It was the touch of that same hand on his face that awakened him and he opened his eyes and looked up into the violet depths of hers, as she stood looking down at him. It was broad daylight and she must have awakened

some time before him, for she wore clean jumpers and had combed and brushed her short blonde hair. He jumped to his feet, ashamed of having overslept, and she laughed at his embarrassment as she pointed to the Graumman circling for a landing overhead. Ellington had returned and all was well.

He was hurrying for the gangway when she called him back to extend to him the sandwich and the last cup of coffee which he had saved from dinner the night before. The thermos bottle had kept it warm. As he took them, she rose from her couch and signified her desire to go with him.

Well, why not? When the Graumman rolled to a stop, McSaunders and Ellington saw their commander strolling up to them, a sandwich in one hand, a cup of coffee in the other and a beautiful blonde woman hanging on his arm. McSaunders leaped out before the ship came to a full stop and doffed his flying helmet in an extravagant bow.

"Good morning," he said, politely, "and how were the Scandals and the Central Park Casino? And why didn't you two breakfast at Childs?"

"Don't be an ass, Mac," returned his unabashed commander. "I had a very pleasant time thanks to the fact you weren't here, but don't get any quick impressions. This is Vania, I don't know the rest of her name, if there is any, and she's the bravest girl I know and just been through a hell of a tough time. Be gentle, fellow."

"Sorry, Commander. I didn't mean to be fresh but we've been fighting a flock of flying lizards all night without any sleep and here you two walk out as fresh as daisies and looking as though you would like to go for a stroll down Park Avenue."

He took the hand which Vania ex-

tended to him and shook it warmly. "I'm very glad to know any friend of Johnny's," he said. "I hope you had a nice trip."

Vania accepted the handshaking but shot a quick look at Johnny, which caused that pride of the battle fleet to redden, as he realized she had finally suspicioned that hand-kissing was not the ordinary form of salutation among earthlings.

"McSaunders." Johnny introduced him. "The ultimate in asses but a good engineer. He wants to know what makes your rocket tick"—and then to the engineer—"Get that portable radio out and working as quick as you can, will you? I want to talk to Malmson."

Mac jumped to work after suggesting that to save time, Johnny use the set on the Graumman at first. Ellington greeted the officer who had just emerged from the rocket and re-entered the ship with him to select his next passengers.

**J**OHNNY got through to Malmson without difficulty and found that Tsar was in the radio room and apparently approved of the arrangements that had been made to receive the rocket's passengers.

"He wants to talk to Vania, whoever she is," said Malmson, at the end of their talk. "Can you find her for him?"

"Sure," said Johnny, "she's right here. Wait a second." He reached over the side of the ship and said "Tsar." She appeared to comprehend immediately what was wanted and reached up her arms for him to swing her aboard. Johnny was glad to explain in sign language the use of the radio. She understood the idea immediately and soon was chatting briskly into the "mike" in her Lunar tongue.

When she finished, Johnny again took the phones and mouthpiece.

"That's it, Hugh, whatever she said to do is Okay. Tsar will explain. I'm ringing off now as the next load is leaving in a minute. Mac will be testing with you on the portable in a few minutes. You can leave Morrison in charge and come on over yourself if you think it's safe. Cheerio!"

He rang off and sat there a minute thinking. It would take several days to transfer the Lunarites and then what?

The next three days were busy ones. Ellington and in his turn, Morrison, made trip after trip in the amphibian, transporting the crew and passengers of the rocket to the shelter of the "McGinty," whose crew had willingly turned themselves out of their quarters to provide space for the newcomers. Malmson came over to the cruiser, and he and McSaunders spent hour after hour prowling through its intricacies under the supervision of the officer whose name turned out to sound something like "Dejar," but who soon answered to McSaunders' abbreviation of "Jim."

On the afternoon of the first day, Johnny and Mac had held a conference with him and with the aid of their ready pencil and sketchbook had managed to convey the necessity for immediate disposal of the bodies of those who had perished. As it would be impossible to bury them, they had been piled into an immense pyre and impregnated with oil from the cruiser's stores.

**B**EFORE dawn the next morning the two officers and the Lunarite stole out of the cruiser to attend to the final disposition. Johnny, who had moved his quarters into the radio

room with McSaunders, stole into the control room to shut off the blue radiance and found Vania sleeping. What was his surprise then, as the pyre was about to be fired, to see her appear in the companionway entrance and halt the proceedings. She knelt beside the pyre and, as Johnny and McSaunders bared their heads, she prayed to the new moon which shone in the east in the before dawn sky. When she had finished, Johnny repeated as much of the burial service as he could remember, and, with the feeling that he was doing the proper thing, handed her the torch which Mac had prepared.

She thanked him and, without a shudder, stepped forward and held it under the oil soaked wood, until the base of the pyre was well ignited.

"What a girl," whispered Mac. "She's seeing the last of eighty of her friends and she doesn't even flinch!"

Without a word the four of them stood and watched the flames shoot sky high while the animals in the nearby woods howled and screamed at the sight.

"It's as good a way to go as any," said Mac as the last flame died down. "Well, let's have breakfast."

And so the incident was finished.

It was when the transport job was nearly ended that Johnny made a surprising discovery. With the exception of Tsar, all the people flown to the "McGinty" were women. Not a Lunar man made the trip and—as he found out from Vania—they had no intentions of doing so, at least for the present.

"Someone has to stay and care for the animals and the records we brought with us," she explained, "so the males will stay under the leadership of Dejan. Perhaps someday they can be sent for. If not"—she shrugged

her white-clad shoulders—and tried to tell him another reason which he could not then understand.

She insisted on waiting with Johnny until the final trip. When Ellington brought in the Graumman for the last time, the two of them stood beside the plane and looked back at the wrecked space-ship. Dejan and his eight men were drawn up before the gangway to bid them farewell. Beside the vast bulk of the wrecked rocket, they looked very helpless and puny.

As Dejan raised his arm high overhead in a gesture of farewell, the two entered the plane which, with motor roaring, pivoted almost in its own length and swung off into the blue. It had been hard to go.

That evening there was a conference in the wardroom of the "McGinty," with the five earth officers, Vania and Tsar. Immediately on reaching the ship, Johnny Morgan, without explanation, had ordered "up anchor" and taken the "McGinty" to sea. They were now keeping well out and headed at normal cruising speed of fifteen knots in a south-easterly direction down the Atlantic Coast.

Johnny opened the conversation.

"I don't want you fellows to think that this interruption has made any change in our original plans," he said. "Except that we have 80 more mouths to feed our situation is just the same as it was before. We've got to establish a permanent base where we are safe from dinosaurs and pterodactyls and such. And where we can establish a city. Ellington, how much gas is left in the Graumman?"

"Enough for about twenty hours of flight."

"That will have to be enough then. I believe it would be anyhow, for all we need is a survey job."

"But where are we going?" demanded McSaunders. "We haven't fuel oil enough to steam all over the world."

"We're not going to," his commander answered, and drew out the folder of picture maps that Vania had first shown them in the control room of the rocket. "Hugh, did it ever seem queer to you that we found Manhattan Island a mile up in the air?"

Malmson nodded. "Yes it did. But I believe I've got a possible answer for it."

"What's that?"

"It means that in the next 50,000 years either the ocean level is going to be raised or volcanic disturbances will lower the land. Perhaps both."

"That's obvious. Now in the legends of antiquity of the human race, how many such disturbances are on record?"

Malmson smiled. "Only one, that we have any traditional record of. I see what you're driving at, Johnny."

"I thought you would. And if there's any possible beginnings of civilization at this early date, where would they be?"

"There's only one spot on the world that I can think of."

McSaunders interrupted.

"You mean—"

Johnny nodded. "Atlantis, of course. That's why we're headed South East. Look at this chart. The Lunarites had excellent telescopes and they mapped the earth's surface as it is at this time, very carefully. The island of Atlantis is plainly indicated. It's a mountainous and volcanic island about the size of Borneo and roughly the same shape as Australia. We're going there."

"To Atlantis! What an opportunity!" It was Ellington, who made the statement almost reverently. "I

wonder what the people will be like?"

"We'll find out," said Johnny. "They'll be in some early stage of civilization, I expect. But they'll take us in. They'll have to," he finished grimly.

"But what had that stuff about New York being a mile-high have to do with it?" demanded McSaunders.

"It was a pretty fair indication," said Malmson, "that even disregarding Vania's map, the continent of Atlantis has not yet been destroyed and raised the sea level as such tremendous settlements might."

"Oh," said Mac, "then we can count on a few years before that happens, can we? There's no use in our settling down and then having to move again right away."

"There'll be as many years as you'll need. At least 25 and probably nearer to 35 or 40 thousand."

"I guess that'll be time enough. When do we sight land, Johnny, and then what do we do?"

"We've got about five days steaming at this speed and I'm not going to risk a landing party again. Ellington and the Graumman will make an aerial survey and pick out the best spot for us to settle. Then we'll go there or as near there as we can get by sea, beach the 'McGinty' and dismantle her."

"Dismantle the 'McGinty'!" They were horrified.

"Certainly," said Johnny, "or perhaps I should say, wreck her. We're not going to be seafaring people for a while. We're going to be farmers and builders and live stock raisers. We can't expect any more help from the moon. Vania has told me that it was moving away so fast they could hardly expect time to build and launch a new rocket and it couldn't get there if they did. It's up to us



and we need the 'McGinty's' turbines for water power purposes, we need her metal for a thousand uses, smelters, refineries, work shops. We need her wiring system for our own lights ashore. We'll make anti-aircraft batteries of her guns in case the pterodactyls should pay us a visit. After awhile, when we are settled, McSaunders will build us a large air-ship and we'll go back for the records and crew of the rocket. But that's a couple of years away."

At first the idea appalled them, for the "McGinty" meant home to every man. But they were primarily practical and soon saw the wisdom, indeed the necessity of the proposal.

"But all that comes later," Johnny finished, "the first thing to do while we have time is to teach the Lunarites English. This is our world and the language used will be ours. I want every one of you—I hardly need to include the aviators and Mac in this—to pick himself out a girl and in his time off duty teach her English, just as fast as he can. And the first words she learns are not to be 'I love you' either. We've got a lot to do before there's any time for lovemaking."

It was on this note that the conference broke up and the aviators and McSaunders departed to inform the crew of their strange new duty. Malmson remained behind.

"Look here, Johnny," he said, "I've been spending a good bit of time on the 'McGinty' the last few days and you haven't. Do you really think that last order was necessary? If you do, you're dumber than I think."

Johnny laughed. "Of course not. These girls are too pretty and fragile and too much in need of somebody to take care of them. And the last part of it was wasted too.. I'll bet every man aboard the 'McGinty' has picked

himself out a lady already and I'll bet that some way or other he is managing to talk to her too. But there won't be any trouble. These girls are too intelligent and too conscious of their high duty and purpose for that."

"What do you mean?"

"Vania here has been studying English at odd moments ever since we met. Lady, did you understand anything of what was said tonight?"

The moon girl nodded. "Quite a bit," she said unexpectedly, "Tsar too. He learn also."

"See, Hugh? Did it ever occur to you as strange that we left all the Lunar men behind? It did to me and I thought it was sort of brutal. As soon as I could figure out a way to get the idea across to Vania I asked her about it. And I found out. You see, Hugh, the moon people risked everything to perpetuate their race—and we haven't any women with us."

"And so?"

"And so the men sacrificed themselves, deliberately. There was nothing for them in the way of perpetuation of their race they could hope for. They'll hang on there at the rocket and guard their records until someday we can send for them. But if the moon race is to be preserved, we must do it."

"I haven't noted any holding back on the part of any of us, either," Malmson commented dryly. "Even our Commander."

Johnny Morgan reddened. "Come up on deck with me," he ordered. "I want to check our course."

THE weather continued perfect and the "McGinty" continued to steam slowly southward and eastward on her last voyage. Trim, sleek, last minute product of the Navy builders' art, she was going to the

junk yard, fifteen years ahead of her time. But her crew didn't care.

Just after dawn on the morning of the sixth day, Johnny Morgan and Malmson were again on the bridge when the snow-capped mountains of the island continent thrust their peaks above the horizon.

"There's home, Hugh," said Johnny, lowering his glasses after a preliminary survey. "Home at last." He quoted under his breath—" 'And the sailor home from the sea'\*—But I guess we'll stay away from those babies." He gestured off to the east where a group of wisps of smoke floated lazily to the sky.

"I guess we'd better," nodded his second, "volcanoes, and big ones too. We'd better head south."

All that day the "McGinty" steamed slowly southward along a precipitous shore where the mountains seemed to extend clear to the water's edge. Just before nightfall they entered a tiny land-locked bay where a brisk mountain stream dropped hurriedly into the sea.

"If we stay here, Mac, there's your water power," commented the Commander pointing to the stream. The engineer sniffed delightedly.

"Pine trees! I thought I'd never smell 'em again. I'll bet there's bear in those forests and the great granddaddies of all trout in that brook."

"And we're almost under the equator at that," commented Malmson. "There's a cold current runs all along here, from the Antarctic probably, and of course those high mountains have something to do with it. It's ideal for us."

"At least we'll find out if it is tomorrow. Tell Ellington and Morrison to get ready to take off in the am-

phibian at dawn, but not to put her overside until morning. Then we'll know."

The "McGinty" dropped her anchors and somehow or other everyone heaved a sigh of relief. This cool quiet spot looked as if it belonged to them. A place where they could work and relax in peace, live the balanced lives that men should live and be happy. No one deceived himself as to the prospect of hard and perhaps uninteresting labor that confronted them. But they were ready to take it—in their stride.

Somehow the evening developed into an impromptu celebration. The women from the moon felt that their infinite journey was ended at last and that they had succeeded. The men of the "McGinty"—well most of them were in love and what more could they want?

Although the moon women had brought little with them except a change of clothes, several of them were accomplished musicians and had already learned to play earth tunes on the ship's musical instruments. As there was no fear of monsters in this shallow harbor, Johnny turned on all deck lights and the "McGinty" staged a ship's dance as nonchalantly as though she were still berthed at "Dago" harbor.

Ellington and Morrison approached Johnny at the height of the evening.

"We're going away in the morning, Sir?"

"Yes," said Johnny, "I know. Better turn in early."

"A ship's captain can marry people," Ellington blurted out. Johnny caught the idea at once and looked serious.

"I know you said there would be no weddings until after we were settled," said Morrison, "but we're going on a

\*Robert Louis Stevenson.

dangerous flight and we'd like to be sure of 'em."

"Nuts," Johnny chided, "you just want to prove that the air-service can get ahead of the fleet again. All right, go get your dames. I've been expecting this and I've even located a prayer book. Vania will read the Lunar service."

Ellington had chosen the pert little miss he had brought as his first passenger and Morrison had managed to make an impression on the tallest moon maiden aboard, a damsel all of five feet four inches.

Before the entire assembled ship's company the four of them faced their Commander and Johnny read the familiar, old fashioned wedding service. When he had finished, Vania recited from memory the rites as they were prescribed on their lost world. And so they were married.

THE next day was spent in a fever of impatience. After the two bridegrooms got away on their voyage of exploration, swinging wide over the valley to the southeast and then banking sharply to climb over the mountain ridge, the usual work got under way. Fishing parties left early in an effort to refill the "McGinty's" larder, and on deck the usual work parties carried out their daily duties but many an eye was cocked aloft and many a swab was stilled as a deck hand listened for the throb of returning motors.

Just before dusk, after some fourteen hours in the air, the Grauman returned. She dropped slowly down to the harbor and pulled up beside the "McGinty" in her customary perfect landing. The pilot and observer made fast and came over the side to report to Morgan and Vania on the bridge.

"It's all right," said Ellington, cheerfully. "Or at least it looks all right to us. There are no monsters and no flying lizards, too high I guess. Lots of small game and we saw some deer. No cities though and not a sign of any inhabitant, not a darned thing. We believe the whole island is uninhabited. At least we covered some 2800 miles of it."

"Good," said Johnny, "even better than I had hoped. A quiet place, plenty of game and no one to disturb us. Tomorrow we'll land and explore."

And they did. When a three days' search of the area by half a dozen landing parties had revealed nothing more dangerous than bear, they decided to beach the "McGinty" and begin the construction of their village. Spring in those latitudes was just beginning or more probably the rainy season was just ending, and Malmson believed they could still get a crop from their scanty store of grain. In any event there was plenty of game and they could live.

The last evening, before they ran the ship ashore, Johnny Morgan and Malmson sat smoking in the latter's cabin.

"Tomorrow you get unanimously appointed as Atlantis' first mayor, Hugh," said Johnny.

"How come?"

"Well a ship captain can marry people in a pinch and so can mayors, but I never heard of a captain marrying himself. Did you?"

"Vania has finally said 'yes', eh?"

"Well she thought we ought to wait a little longer but I talked her out of it. Hugh, you know sometimes I can't really believe we are living 50,000 years too soon. It doesn't seem real somehow, does it? It might just as well be 1620 and tomorrow we would be making a landing on Plymouth

Rock or it might be 1935 and we were planting a colony on some undiscovered island."

Malmson smoked in silence.

"There's another fact that bothers me. This is the island of Atlantis all right, but where are the Atlanteans? According to the best guesses of our own archaeologists they should be beginning their civilization about now."

Malmson took his pipe out of his mouth. "That's bothered me, too. But has it occurred to you that perhaps they are—and that we're it? Us, the Lunarites and the crew of the 'McGinty'?"

"That's ridiculous. Why we'd be our own ancestors, pulling ourselves up by our own bootstraps, so to speak. It would contradict the whole theory of evolution."

"Not necessarily. I've always thought there was a flaw in the Darwinian theory as he outlined it. It reads well but there's too great a gap between man and his next most intelligent neighbor. Man ought to be dumber or the chimpanzee more intelligent, one or the other."

"You believe then—?"

"I don't believe. I suspect. It seems possible to me that man evolved from the primitive all right but he needn't necessarily have done it on this earth. A good proof of that possibility lies asleep in your cabin right now; Vania. And perhaps people like her didn't even get their start on the moon, perhaps they were intelligent beings when they first arrived there, who knows?"

"But where did they come from then? From Mars?"

Malmson shrugged. "I haven't any basis even to guess with. Perhaps civilization advances crabwise with men being sent back through time to

help out backward peoples or even backward worlds. It's a wild guess but interesting to think about. But I don't believe that, if we are destined to become the great grandfathers of Atlanteans, we'd necessarily be our own ancestors."

"What else would you call us?"

"I don't know, but such a premise would explain why Witherspoon and the other four on the 'McGinty' couldn't travel through time with us. They *WERE* descended from some of the Atlanteans who escaped from the final tragedy. And so they couldn't go back."

THE two men smoked for awhile in silence.

"I'm just a simple sailor," Johnny said at last, "and you've got me dizzy. To think we'll never really know what happened to Witherspoon and the others. Or even whether the fleet escaped."

Malmson turned his chair with a scrape to look his commander straight in the eye.

"There's one chance in a million that we might find out," he said, "if you wish to authorize the experiment."

"Good Lord, what possible chance is there of communicating with people who don't even exist yet?"

"There's one chance in a million that we might be able to communicate. Did it ever occur to you to try the 'D' beam?"

"Don't be any crazier than you have to. I've listened to about all the wild ideas I can stand up under tonight."

"I'm not being crazy. No one knows anything about the 'D' beam except how to use it. It has some queer possibilities. I've been thinking about them for the last six weeks. There's a vague possibility that it might cut through the time dimension."

"But the beam hasn't been on. We'd have noticed."

"Remember we lost both our radio men. They may have tried it just after we disappeared. After that they wouldn't dare to try it would they?"

"Against general orders, of course. Do we dare to try it ourselves?"

"You're the commander. It's up to you."

"Come along." Johnny led the way to the radio room and they seated themselves at the transmitter.

"Wait a minute," said Johnny. "What good would it do? In the first place we can't get back and in the second they wouldn't believe us. Third it's against all orders and if by some miracle it worked, we might be giving away the secret of the beam to the little fellows. No, I guess not, Hugh."

"That's the conclusion I'd come to, too, but I thought as Commander of the 'McGinty' the final decision was up to you."

Johnny rose from the instrument table and stretched his legs.

"No, we'll carry on. We'll build our homes and found our cities and if we're destined to be the fathers of 'Atlantis' why—we'll be the best dads we know how. But we'll keep an operator on duty as long as 'Atlantis' lives, and if the beam ever comes on, we'll cut in and try to explain ourselves. That's the best we can do. Ho hum, too much talk has got me sleepy. Good night, Mayor."

Hugh Malmson repacked his pipe.

"Mayor," he said, and chuckled. "What swell people they all are. You can't get 'em down. The Navy carries on."

THE END

### Epilogue

THE bathosphere dropped slowly through the inky seas of the south Atlantic, her searchlight beam cutting hazily through the blackness. It was a day in late autumn in 1935 and above the seas were roily. It would be the last descent of the year. Down, down, deeper than man had ever descended before. Bottom.

"We've hit," the man inside reported up the telephone cable. "What's the depth?"

"A little over 25,000 feet," came the voice from above. "What do you see around you?"

"Not a darned thing. I might as well be sitting on a hilltop. Nearly five miles down. Well, it's a record. Hoist away!"

And he was never to know that he had been perched on the highest tower of the principal city of "Atlantis," nor that a few feet under him were the time rusted remnants of a 'D' beam set at which for thousands of years a man had sat, waiting for a call that never came. And that a man had been there waiting on that day of catastrophe when "Atlantis" descended under the waves.

And if he had known, he wouldn't have believed.

FINIS



# Zagribud

(A Sequel to "Liners of Time")

By JOHN RUSSELL FEARN

*Many of our readers have enjoyed the adventures of Elnek Jelfel, who may fairly be called the prominent character, but not the hero, in "Liners of Time" and in "Zagribud" he again fills the mysterious rôle that originally introduced him to our readers. The character is drawn with considerable skill and the persistence of those whom he is attacking is strikingly brought out. The author has won much praise and is in a degree a second "H. G. Wells."*

## INTRODUCTION

AGAIN I send to you, via the Time Line from 2004 A.D., a history of my second and, I hope, my final adventure with Elnek Jelfel, the Jovian wizard of science. In my previous narrative concerning him—"Liners of Time"—I hinted, I think, at the more than obvious possibility of his returning to continue his nefarious work of capturing Earth and Earthlings in the interests of Jovian civilization . . . He has indeed returned, or, should I say, he did return? I believe now, with my companions, that he has at last ended his life, and in "Zagribud," I have related, for your especial benefit, the details of this second and, if anything, more deadly and scientific battle.

As a result of these struggles I now possess a face totally different from the one with which I was born; at least it will be an everlasting souvenir of a great adventure. The why and wherefore of this condition you will, of course, discover for yourselves.

As before, the critical amongst you will attempt to question Time. You

will ask how I encountered these experiences when they happen in a Time I have already crossed—a fact which is obviously at variance with the law of time. But, when you take this into account, please remember that all my experiences in this second battle took place in a false period of Time—one deliberately created by Jelfel himself, and such a state was therefore not in alignment with natural Time. It therefore became a new and unexplored field, never before crossed. Otherwise the experiences could never have taken place. As I have said before, a man can only do in his life, at a given second, one chosen action—and every time he crosses that time he will repeat that action . . . That is why I explain to you now, how my experiences were possible.

Beyond a brief elucidation of that matter I have nothing to add to my story, and leave you now to the narrative itself. Again my thanks, my friends of the past.

SANDFORD LEE,

(Commandant of the Time Line,  
2004, A.D.)





*"Great God! Elnék Jelfel!" I gasped hoarsely. He advanced slowly towards the table, and still Ronnit and I could do nothing but stare.*

## PART I

## CHAPTER I

## ELNEK JELFEL RETURNS

THE Fourteenth of June 2004  
A.D. . . .

As far as my eye could see, from my standpoint on the summit of the mighty Time Liner Corporation Building, extended the incredible panorama of unexpected skyline, known to the world as New York. The rearing immensities of buildings, the hurtling air-machines, the silent, personal gliders coming and going in the danger-free Tonium gas—and above it all, the perfect blue of the summer sky, a climate of warm, equable softness controlled by squat cylinders of energy that lay in the heart of the Time Liner Corporation Building itself. . . .

And everywhere, order—precision—duty.

I smiled to myself as my mind went back to that brief period four years before, when I had pitted by relatively puny brains against the scientific genius of Elnek Jelfel, the Jovian—native of a planet which had been eradicated from the heavens of future time. True, the planet Jupiter still shone in the sky of 2004, but only because it was existing in a time prior to its destruction. Again, as I write, I find myself on the verge of one of those incomputable paradoxes that even I, Sandford Lee, Commandant of the Time Way, find difficult to understand.

I was awakened suddenly from my preoccupation at a light touch on my arm. A T.L.C. page stood beside me.

"Doctor Anson would like to see you, sir," he said respectfully, then stood back with a sharp salute.

I frowned and shot him a glance of

inquiry. "Is it urgent, Billy? I came up here for a brief relaxation. Tomorrow, you know, I leave for 20,000, and—"

"Doctor Anson asked me to stress the urgency, Commandant."

At that I shrugged. "All right. Thanks. . . ."

I descended by the percussion staircase to the apartment of the great Doctor Anson, Specialist in Terrestrial Relativity. His particular occupation was the charting of Time Lines and new cosmic paths. As I entered he greeted me with a welcoming smile.

"Hello, Lee, glad you've come along. Something peculiar has cropped up; I'd be very glad if you will give me your advice."

"Willingly," I assented. "But I confess I fail to see how my knowledge can be of any service to the great Anson."

"Needless flattery, Lee. As a matter of fact, you're the only man who knows enough about Time to conceivably help me. . . . What would you say if I told you that the earth, this age, keeps undergoing strange changes? What would you say if I told you that, for some remarkable reason, we are hovering even now between the Age 2000 and 25000?"

I sat down on the stool by his bench with a thud. "We're *what*?" I asked dazedly.

He nodded slowly, his clever face earnest. "It's true, Lee. Something is happening to time—it's shifting—altering—behaving as though it's crazy. I can't understand it. May of course be some cosmic disturbance affecting the time-band, but as the time-band is of another dimension, the theory doesn't seem tenable. What do you think about it?"

"Possibly something amiss with

your instruments," I said presently.

"Not a bit of it, Lee. It's—it's just as though something was trying to superimpose another Time on top of ours. It hasn't been visible yet to the eye, but my Relative Condition machine has responded to the influence."

"Does Templeton, the President, know of this?" I asked sharply.

"Surely—I told him last evening. It was he who thought you might be the man to assist me to explain things. He said something about a man named Elnek Jelfel—"

At that I shot to my feet. "Elnek Jelfel!" I shouted hoarsely. "Good God, did he say that?"

"Something like it," Anson assented. "But Lee, what—Heh! Where are you going?"

I had reached the door in two vast strides. "To see Templeton—right away," I replied, and, as fast as I could go, made my way through the devious routes of the great, confusing edifice until I reached the Debating Room. The guards moved to one side as I entered. Templeton was alone, not accompanied, as was usual, by his fellow directors of the Corporation.

I marched across the shining floor and saluted smartly.

"President Templeton, may I speak?" I asked with tense quietness.

His impartial blue eyes looked up at me. Silently he laid aside his electric pen.

"Why, surely, Commandant Lee. What is the trouble?"

"I have just come from Doctor Anson, President, concerning the strange phenomenon taking place with Time. He said you mentioned Elnek Jelfel. Is that true, sir?"

Templeton hesitated and compressed his lips. He nodded slowly.

"Yes, Lee, I did mention his name."

He looked at me keenly. "Lee, you accomplished a wonderful feat by destroying the planet Jupiter, and, as you hoped, Elnek Jelfel and his entire dastardly race—but I am commencing to have grave fears that your efforts were quite useless. . . . You just averted the catastrophe for the time being. Frankly, doesn't this curious effect with Time savour of that Jovian genius of science?"

"I confess it's about what Jelfel would do—but I see nothing to be gained by such a stunt," I answered. "His idea was, as you know, the importation of human beings to Jupiter to be vivisected, and to use Earthly bodies for Jovian brains, so that they could come to Earth and continue their intellectual pursuits on a more congenial planet, and—"

"Quite—quite!" Templeton interjected. "I know all that, Lee. You, however, in the year 22,000, The Age of Problems, flung Jupiter into the sun and you were firmly of the opinion that all the Jovians went with it. But, didn't Jelfel swear he would return? Didn't he die an unnatural death—seemed to just leave his body before you strangled him?"

"Truly," I answered, troubled.

"Well, Lee, doesn't it occur to you that the only way he can return is to come in either a different time, a future time? He can't come back and live over again the same time as before—that would only mean repetition of all his actions. The only way he can attack is to use a time *after* that in which his world was destroyed! To make, as it were, an entirely new field of endeavor. And, the only way to do that is to make earthly civilization—the civilization he desires most strongly at least—change to a point where he can get

at it! Just as a target might be moved in order to be properly fired at! Now do you see why I suspect Jelfel?"

"Good heavens!" I muttered. "I never looked at it that way before. These past four years have moved so peacefully that I'd almost forgotten Jelfel ever existed."

Templeton's craggy mouth creased in a smile. "He hasn't even come yet for his first battle, according to normal time!" he commented. "Ah, Lee, Time is indeed a paradox."

"Well, sir, if this time trouble is Jelfel's doing, what are my orders?"

He shrugged dubiously. "At the moment, Commandant, there is nothing you can do. We will discuss it again, before you leave for 20,000 tomorrow. If indeed it is Jelfel behind it all, we are going to be up against it!"

I stood back and saluted. "I will report this time tomorrow for further orders," I said obediently. "That in order, President?"

"Perfectly, Lee."

In a troubled frame of mind I departed. The thought of again encountering that scientific and ruthless Jovian was no little worry to carry on my mind, I realized that I had only vanquished him in the first place by reason of an operation on my brain, performed by an amazing brain-planet an incomputable distance in the future.\* How I should fare now, with my brain long since returned to normal, I did not dare to imagine. . . . Perhaps, after all, I decided, Templeton's conclusions were erroneous.

**I** RETURNED through the pedestrian ways to the glider grounds sought out my own personal machine, and presently was floating through the Tonium gas toward my abode, two

miles to the north. I had only just pushed my glider into its roof-hangar when a figure came running to meet me. In an instant I recognized the oval, purposeful face, with faintly humorous gray eyes and exquisite teeth.

Elna Folson—my firmest feminine friend, companion of my early adventures with Jelfel, and incidentally daughter of the President of the Time Liner Corporation of 20,000 A.D. (In each Age, I must make it clear, there was a replica of the Time Liner Corporation Building of 2004—right up to the Age of Intelligence, the Last Age.)

"Sandy!" Elna exclaimed, using as ever, my nickname. "A stroke of luck, indeed! I took a chance in coming to see you; I know you're off tomorrow. So I chartered a fast time machine from 20,000 to reach you. There's something very important I must discuss with you." She looked at me with unwonted seriousness, which rather surprised me, for I knew her gay spirits and engaging ways.

"Oh, what is it?" I enquired, with blunt masculinity. "Not serious, surely?"

"I don't quite know," she replied thoughtfully. "It seems a silly subject, but it is important just the same. Briefly, Sandy—cramp, and bad dreams."

"Cramp and bad dreams!" I ejaculated. "Why, Elna, what's the matter with you?"

"Well, I— But come downstairs, Sandy. We can talk better there."

We descended to my apartment, and over glasses of ekrimar—the marvellous restorative fluid discovered by Handworth in 1986—she unfolded the story to me. And a remarkable one it was, too.

"Sandy, I'm not a nervous girl—

\* I related my adventure with the Brain in "Liners of Time." Sandford Lee.

you know that—and I don't think a girl of 20,000 knows the real meaning of fear; but something, oh! so terrifying, keeps me awake every night when I try to sleep. I haven't had a good night's rest for eight nights now. . . . Honestly, Sandy"—her gray eyes were troubled—"I'm getting scared! Funny, isn't it?"

"You seem energetic enough," I remarked, surveying her face.

"Ekrimar makes fatigue invisible," she answered quietly. "I am dead tired. But, to get back to the point. I've been dreaming, vividly, every night about— Well, whom do you think?"

"How should I know?" I asked.

"Elnek Jelfel!"

My glass dropped from my nerveless fingers and fell to the soft carpet. I stared hard into her face. "Elnek Jelfel?" I breathed. "Elna, are you sure?"

"Do I look as though I doubted it?" she asked indignantly. "Yes, the old Jovian wizard himself, complete with terrible green eyes and biting cynicism. Every night it seems as though I can hear words, which say 'Reassemblation through Elna Folson.' I feel as though I am then crushed by a nameless force, as though the very life is being strangled out of me. I awake shaking from head to foot, overcome by terrific fright. And all the time I see him, Sandy. . . . Something is happening! It's just as though"—she laughed shortly—"as though I'm being killed by a memory. Of course, it's all so silly. Jelfel is dead."

"I wonder if he is?" I said, then detailed to her what I had learned from Anson and the President. Her face was startled when I had concluded.

"That does sound as though he's about somewhere," she muttered.

I nodded gravely. "Elna, I'm just trying to imagine what connection there is between your vivid dreaming of him, your feeling of cramp, and the sudden strange behaviour of time. He may be trying some of his radio-hypnotism on you. He did it to me once. You're strong-willed, though; even in sleep you offset him."

She spread her hands helplessly. "But why should he want to get at me? What have I done?"

"You and I are his sworn enemies, Elna," I answered quietly. "He may be trying to destroy you. Whether just as an experiment or genuinely, I don't know. . . . But I'm going to sort out this mystery. Tonight, Elna, you'll try and doze in that armchair there, and I'll be here with Lan Ronnit. I'll get him to bring along his Brain Emanation Detector. . . . You remember Ronnit?"

"Why, of course. The young chap with the inventive brain from 22,000?"

"That's right. This Brain Emanation Detector of his is a masterpiece. The brain, of course, emits force, impulse, invisible to the human eye. You know that?"

She nodded interestedly.

"Well, this invention of Ronnit's is for measuring brain power. By its use it is possible to tell the clever man or woman by the power he or she emits from the brain. That saves a lot of trouble. The needle on his dial shows immediately the force present—just like an old time voltmeter read a battery's force. Now, if we use that instrument tonight, it will detect great mental power, if such is present. You understand?"

"Perfectly. That's a fine idea; but then, Lan Ronnit is an ingenious fellow, anyhow."

"Truly. And there's something else he's making that may yet be useful somewhere. He calls it the Double Entity Machine. To pass the time away I'll explain it to you."

"Do! Anything like that intrigues me."

"Well, it's a trifle involved, but something like this. Light, as you know, is emitted because of the interaction between the atomic units of electricity, and the ether in which they are immersed. Ether, I hardly need to explain, fills all space—and, for that matter, every interspace. It is, in fact, the welding medium between atoms and planets throughout the Universe. Ronnit has worked from the basis of ether being electromagnetic in property, and also from the known fact that a wave of light consists of simultaneous electric and magnetic oscillations, at right angles to each other, advancing in a direction at right angles to both. You see, when the motion of an electron changes, it radiates energy into the ether. . . . If there were no ether, there would be no light. That's logic. Similarly, the eyes of humans, animals, and so forth, are sensible only to what is really etherial radiation—called light. Now, normally, light-waves radiate outwards from the source, becoming indistinguishable at varying distances, according to the strength of the basic output. . . .

"It is possible, however, Ronnit finds, by superimposing a radiation beam, several degrees above even Hertzian waves, to *bend the ether itself*—that is, turn its electromagnetic power from a straight line into a circle, his radiation beam performing the feat of what he calls reversed momentum—like the stunt of throwing a hoop through the air in such a way that it will roll back to you

when striking the ground. So, with this method, the light from an object is turned back again onto the object—but, as the return back takes several seconds, the original object has had time to move in the interval. Apparently, though, the object is still there, by the light waves reflecting an apparently stationary image. Thus Ronnit has invented a very useful weapon. A person can move from a given spot—indeed any number of people within reason—and yet apparently not move, all because of the bent ether. A neutralizing beam, of course, puts matters back in order again. . . ."

Elna smiled thoughtfully. "Somehow, Sandy, I have a vague feeling that we are again on the verge of witnessing more scientific miracles like those on our last mad adventure with Jelfel. I'm not afraid, but I don't like suspense—and bad dreams and cramp!"

"You'll be all right," I reassured her, rising to my feet. "I'll just let Ronnit know we want him."

I moved across to the television communicator. This apparatus, separated from the main television bands by a frequency of reversed output waves (absorption beams which collected all encroaching television waves that would intermingle with the private and public bands) was perhaps one of the most handy devices that ever came to 2004. One pull of a button started up the sound and vision machine; a turn on a dial tuned in the exact wave-length of the person you wished to call, the numbers being prearranged in the same manner as telephone numbers had once been. . . . So it was that Lan Ronnit's lean visage presently appeared on the screen.

"Hallo, Lee!" greeted his voice.



"What's the trouble? That Elna there, with you?"

"Yes. Now, Lan, listen carefully. This is important. . . ." And I outlined the circumstances. His face was serious when I had concluded. "Jelfel again, eh? That's tough, Lee. All right, I'll bring along the Detector this evening—about seven-thirty."

"That's fine," I nodded.

"Right you are, then. Good-by."

**SEVEN-THIRTY** that - evening found Lan Ronnit duly with us, and we spent half an hour erecting his Brain Emanation Detector. Afterwards we sat for a time and chatted, then, as darkness began to spread its mantle over the crazy bulk of New York, I drew over the curtains, switched on the light, and motioned Elna to the armchair.

"Do you think you could try and sleep?" I asked her.

She nodded and yawned prodigiously. "After the nights I've had I could sleep on the edge of a time-line," she assured us; then sank down in the softly sprung upholstery and closed her eyes. I switched off the main light and connected up the small, pink-glassed table-light. My view became limited to Lan Ronnit's cadaverous face, bent over his instruments, and, behind him, the further vision of Elna crouched in the chair. A pale green beam presently sprang from Ronnit's machinery and clung to Elna's hair. . . . Instantly the needle on his recording dial registered 140—about quarter of the way around the dial.

"That's all right," he murmured. "Her brain emanation is about normal for a clever young woman. . . . Ah, good! She's asleep, Lee." We listened carefully and detected her deep, steady breathing. In dead silence we

stood looking at her, save for an occasional glance at the instruments. . . .

Then . . . . How am I to describe my sensations? There very slowly crept into the utter silence and half-light of my cozy flat the most terrifying fear I have ever known. A sense of icy presences, invisible yet ruthlessly potent, seemed to slowly group about me. I felt strange chills creeping up and down my spine, sweat began to roll down my face. Lan Ronnit's profiled face was gleaming as though he had washed his face and omitted to dry it. Biting his lips to control himself he pointed with a violently shaking hand at the emanator needle. It was moving slowly—rising! 140 — 200 — 220 — 240—My eyes bulged in amazement. 360! Maximum! The needle became steady at that point. Mind force, terrific and colossal, was somewhere present.

"Look at Elna!" Lan Ronnit whispered with terrific effort.

I stared at her and beheld her slowly rising to her feet. Her eyes were wide open now, but staring with the most unnerving, fixed gaze into emptiness so that I felt my heart jump. She was dead asleep, yet wide awake—whether in the grip of some superhuman hypnosis or not I could not then determine. Gaining her feet, she took three faltering steps, then crashed over suddenly to the rug, to lie inert.

"Elna!" I gasped hoarsely. "Elna! What has—"

"Wait!" a voice commanded abruptly, from the air itself—a voice oddly familiar, that struck something in the recesses of my memory. A hard and metallic, faintly cynical voice.

Ronnit and I stood stupefied, unable to move to the stricken Elna, so overcome were we. There came a sensa-

tion of coldness—pure, streaming cold—the infinite cold of interstellar space. Then, it seemed, from Elna's inert body a misty figure rose up, took on gradual form, and at last became solid. A figure was standing on the rug before us—a figure of medium height with coal black hair, white face, and boring, implacable green eyes. A figure attired in dead black.

"Great God! Elnek Jelfel!" I gasped hoarsely.

He advanced slowly toward the table, and still Ronnit and I could do nothing but stare.

"Yes, Commander Lee—Lan Ronnit. I am Elnek Jelfel himself," he assented. "For a long time I have striven to overcome Elna Folson—to manifest myself through her body upon this childish planet. The reason for having a body through which to manifest myself is on account of Earthly conditions as compared to those of Ondon—and which process I will fully explain to you, at close quarters, at a later date."

"You seem as assured of yourself as ever, Jelfel," I said grimly, that strange feeling slowly passing away. "I thought you were dead."

"I know," he assented coldly. "I warned you that I should return. When you strangled me on my observation tower in the Age of Problems, I merely moved my own entity from my body into another dimension—there is no limit to mind force—and projected my mind back to Jupiter. There I took on another form—which I have now. I am, however, again in those earthly integuments which serve to make me earthly in appearance. Beyond doubt, Commander Lee, you have a lot to answer for!" He leaned forward, his face indescribably venomous. "You hurled Jupiter, my native planet, into the

sun! You and Anton Frot, that mathematician. Fortunately, we realized what was happening, and migrated to another planet—Ondon by name. His Serenity Rath Granod, the All Wise, still rules the destinies of Zagribud, our principal city, which we moved piecemeal through the void. It is his will that the conquest of the earth be continued. Ondon is too inefficient. Only Earth alone will suit our purpose. The first batch of human beings will be shortly removed to Ondon, so that we may transfer our brains to their bodies."

"You're going to do all this without space ships?" I asked drily.

"Fool!" he returned cynically. "They will be removed from Earth by a process of which you at present know nothing—but which you will be fully acquainted with later on. You and Lan Ronnit, Elna Folson, that mathematician Frot—all of you, shall be the first subjects."

"Then—then Elna is not dead?" I said eagerly.

"No. I do not kill like that, Commander. Now, I must again return to Ondon before my time has elapsed. You see, I cannot stay here long in case I dissolve! The only reason I can appear in this earlier time at all is because I have never visited it before—but to obtain the entire human race it will be necessary to move time onwards to a point fixed roughly at 25,000—a little way after the Age of Problems itself. That will be done. I will no longer upset Elna Folson so much; in future I will make the materialization more comfortably. This has been an experiment to see if exchange of personality is really practicable. I have found that it is . . . Prepare, Lee, to match your tiny brains against the power of Elnek Jelfel and Rath Granod. . . ."

Even as he spoke he commenced to become transparent. We had a last vision of his icy green eyes and white face—then the space where he had stood was empty!

## CHAPTER II

### TIME AND RELATIVITY

**H**ALF an hour later Elna was normal again, seated in the armchair, her gray eyes scanning the strained faces of Ronnit and me as I told her of what had taken place.

"There is no question of it now, Elna—Jelfel has returned," said Ronnit grimly. "It seems that his appearance was purely to justify an experiment—to be assured that he could materialize on Earth through you. Later, maybe, he'll explain."

"I cannot see how time can be made to alter," Elna said worriedly.

"The only way, as I see it, is this," I answered. "Carreno's time band, as we have proved, extends right into the cosmos. Somehow, these Jovian scientists are going to alter it. We don't pretend to understand Jelfel's science, you know. . . ."

"We must warn the people," Ronnit said purposefully.

"We can warn them," I admitted; "but we can't help them. Against Jelfel we're just babies! Let me think now. . . ." I strolled meditatively towards the window, and pulling aside the curtain looked down on the blazing immensities of New York; and above, dim and obscure with the upbelchings of light from the city, the star-studded sky. My mind reeled as I tried to contemplate the nature of a mentality that could reincarnate itself through an earth woman after travelling through interstellar void;

that could hurl its intellectual power across light-years of infinity. . . .

And as I looked at the sky I beheld something strange; something that certainly was not a part of the normal heavens. Objects like shooting stars were falling to earth in the distance—perhaps fifty miles away. My mind revolved around a meteor swarm . . . then suddenly an amazing pyrotechnical display exactly over the city itself—a swarming mass of incredible colors. I stood open mouthed at the sight. Very slowly I lowered my gaze to the city itself, to realize that something must be amiss with my brain or else my eyes.

"Elna! Lan!" I commanded, in a low, husky whisper—and they came silently to my side.

"What's the matter?" Ronnit enquired in his cryptic voice.

"Do you see what I see?" I asked quietly! perhaps my voice shook a little.

There was silence for a space, then an astounded ejaculation burst from Ronnit's lips. "Good God, Lee, the city's shifting or something! Changing . . . Looks as though it is being superimposed on itself! What on earth. . . ." He stopped and clutched tightly at the curtains. I too felt the same uncanny sensation that had stricken him at the identical moment. A feeling of nausea, an odd conviction that my body was going down and my brain up, as though the molecules of my being were in a state of disruption. I had a vision of Ronnit and Elna pitching helplessly sideways, then I suppose I must have followed suit. I struck the carpet and completely lost consciousness. . . .

When I recovered it was daylight. Elna and Ronnit came to their senses almost at the same time, and we rose unsteadily to our feet in the shafts

of the hot sun streaming through the window. For a space we stood looking at each other in dumb inquiry. Something was amiss somewhere; we could sense it. Slowly we turned around and towards the window. We stood dumbfounded, unable to believe for the moment the testimony of our own eyes.

"What on earth. . . ." Ronnit began, staring hard and blinking. Then he pointed suddenly. "*Look!*" he gasped, and the gaze of Elna and me followed his rigidly pointing finger.

FROM our high perspective we could see the entire city before us, but it was a city that was at once familiar and yet mysterious. For a space I racked my brains to understand the mystery—then in a flash it came to me what had happened.

I clutched Elna and Ronnit with fierce compulsion.

"We've moved forward in Time! Don't you understand? This is the Age after the Age of Problems and immediately before the Age of Intelligence—the year 25,000 to be exact. . . . Let me get this clear! In our last adventure we wrecked the Age of Problems, 22,000, completely, but the year 25,000 sees humanity well on the road to recovery again. I begin to get it. Jelfel has shifted all the people of 2004 to this Age of 25,000, so that he can be in a time where he has never been before."

"But why?" Elna demanded.

"For exactly three reasons," I answered grimly. "One, so he can be in a time he has never trespassed on before; two, so that he can get at us whom he hates like poison; and three, because the people of 2004 are more to his liking than the highly intel-

lectual people who occupy this Age of 25,000. They might prove too good for him."

"But where are the actual people of 25,000—of this age?" Ronnit demanded.

"Presumably they have moved forwards twenty-three thousand years, just as we have," I replied quietly.

"Whilst we were unconscious, then—whilst the entire civilization of 2004 was unconscious, we were moved from 2004 to 25,000. The change of time caused us to appear in your flat in 25,000? That is it?" Elna asked keenly.

"Exactly," I assented. "Since my flat, same as all New York buildings, including The Time Corporation Building, are identical in every Age, we hardly moved in space at all. In my visits here I've often used this flat. I—" I stopped and looked around at a sudden imperious hammering on the locked inner door. Opening it, Hilton, my man-servant, entered looking oddly bewildered. . . . Quietly I explained the circumstances.

He moved about reiterating "Most extraordinary!" when I had made things clear to him, until presently he called my attention to the calendar on the wall.

"The 15th June 25,000!" whistled Lan Ronnit. "You were right, then Lee. Of course, that calendar, being automatic and controlled by the sun itself, is bound to be correct. Jelfel has succeeded this far, then—evolved us all into 25,000. Good Lord!"

"Lucky I have a flat in every Age," I commented. "For that matter, so have you, Ronnit—and I think Frot has, too. Shouldn't make much difference to us. We know 25,000 well enough, anyhow."

"So I've lost my Brain Emanation Detector, anyhow," Ronnit grunted.

"It's in 2004. . . . If you want any of my inventions at any time, I'll have to get them made here, from the records handed down from the past time. Some paradox!"

"It seems to me—" I began, then paused at a footfall. Two figures came through the doorway—President Templeton and Doctor Anson.

"You realize what has happened, Lee?" the President asked in his impartial voice.

"Certainly I do, President. Nor is this all. Jelfel himself appeared last night—"

"He did! For what reason?"

"Purely to justify an experiment, President." Briefly I explained the amazing manifestation, and Templeton's brows came down.

"Commandant, this sort of thing must be stopped before it becomes too great a task for us. You will take a fast time machine immediately and go forward to the Age of Intelligence—that is the population of the Age of Intelligence, which will be twenty-three thousand years beyond its appointed place—probably in the Last Ages of Earth. Learn from them how best to overcome our difficulty. If their brains cannot conceive a way we are in a tight corner indeed. After that—" The President paused and frowned as a young, dark haired woman entered, carrying a small object in a leather case.

"President, I have just flown from the T.L.C. building with this," she said quietly. "It's a Franton atom-destroyer. I was told you had flown to Commandant Lee's flat to see if—"

"All right, Miss Jeron, all right," Templeton grunted. "Take that thing to the arsenal. Very useful—no time to bother now. Hurry. . . ." The woman left and Templeton smiled faintly. "My secretary," he explained.

"Well, Lee, I think that's all. Go with all speed, will you?"

"At your service, sir," I answered, saluting. He nodded and went out with Dr. Anson by his side.

"Literally, we are now in a position to be shot at," Ronnit said pensively. "Neither the obstacles of time or space are in Jelfel's way now. An absolutely open field—A ghastly thought."

"You'd better both come with me to the Age of Intelligence," I said quietly, and they nodded their immediate acquiescence.

WE descended the building to the outside. It did not strike me as an unfamiliar panorama—merely an early edition of the Age of Intelligence. With my work, one Age was as familiar as another, as, to an old time engine driver, one state would be as familiar as another.

I found the housing sheds for the fast-time machines in their accustomed place, and silently the three of us passed inside.

Inside a machine, I moved to the controls, then to my surprise something held me rooted to the spot, my outstretched hand not four inches from the switches for releasing the exterior repellers. I shook myself, thinking for the moment some stray current of powerful magnetism had attracted the nails in my boots. I turned to make a laughing comment on the matter, moving only my head, when the laugh was stricken from my lips as though with a hand.

In the centre of the floor, facing Elna, Ronnit, and me was Elnek Jelfel himself, a faint smile on his ivory-white face.

"My salutations," he remarked dryly. "Forgive me if my arrival is a little startling, but then there are

many things known to Jelfel that are unknown to the little-brained creatures known as Earthlings. You see, I am here now to start my campaign in real earnest. Sit down, the three of you, on that bench. It is rather a strain, even to my mental power, to hold the three of you rigid with mind force; the relaxation will be quite a relief." He smiled sardonically. "You thought, when you were up against me before, that you were competing with a scientific wizard, didn't you? You are now to face science of the *nth* degree. Power and genius colossal!"

"You ramble too much, Jelfel," Ronnit grunted. "Spit out what you've got to say—then clear off. You give me the creeps. . . . I suppose you'll be telling us next that you came from Jupiter on a light wave, or something?"

"You know already that Jupiter is destroyed, and that we exist on Ondon," Jelfel answered bitterly. "Ondon—a miserable, barren planet with a yellow sun. We, of Zagribud, can never forgive the hurling of Jupiter into the sun. . . . But, to the point. I am here as the ambassador of Rath Granod. At sundown, the first humans will be sent to Ondon, and I am here to supervise that work. You know already how, and why, I manifested myself through Elna Folson. Purely to see if duplicated personality could be achieved."

"We know you did it, but how remains a mystery," I answered, feeling again, unbidden, that admiration for the man's almost uncanny knowledge. Elnak Jelfel was the most compelling, insolently superior creature I ever came across.

"Ah, yes, I had better explain," he admitted. "You, Commander, are always so kindly and tolerant towards

my expositions. . . . To you, on Earth, the conversion of matter into energy is as yet an impossible feat. If energy disappears you expect to find generation of matter, and if matter disappears you expect to find evolution of energy. That so?"

"Right," said Ronnit laconically.

"Well, in the Ondonian laboratories, conversion of matter into energy is a simple task, by using the ether itself. The force of ether is so concentrated by our instruments as to change matter into pure energy. But, a person of even my slight size converted into pure energy produces, of course, an incredible amount of energy. You may know the elementary fact that one-tenth of a milligramme, a very minute weighable speck, moving with the speed of light, equals a load of six hundred tons falling one mile."

"That's a fact," I agreed.

"Splendid, Commander. I am indebted, indeed. Hence, the energy of a man, of the matter that composes him, is terrific! This energy, once released, results of course in the instant dissolution of the person concerned, as his energy passes into sealing tubes. Now, to convert that energy back into the original matter there must be a medium, and that medium must have exactly the energy equivalent of the matter that has already been converted into energy. The reason for this being that the energy of motion creates heat, but the intermingling of the two energies together causes the pure energy to resolve back into matter—hence it appears that one person possessing the exact energy equivalent of another, can evolve into matter through that person. Elna Folson is my exact energy counterpart, as we found by our detectors on Ondon—so I ma-



terialized through her. My energy was projected *via* the ether itself—for ether, as you know, projects energy at the speed of light—is indeed, the vehicle of energy. It was thus a case of fixing a movable force projector on Ondon to be exactly in line with the energy emanations of Elna. Wherever she went, however Earth changed its position, this straight line of force always followed her, so there could never be any doubt but what it was directly in line with her. The force projector was of course altered sufficiently to reach Elna although she occupied a past time. . . .

"That line of force would affect her energy and give her a sensation of cramp, which effect, I read from her mind, she has experienced. So, when my matter form was converted into energy it was despatched from Ondon, walled in with sealed particles to prevent any escape of energy, and propelled down that line of force in the ether—the perfect vehicle—just the same as a boat might follow a channel to the sea. . . . Since the dissolution of my body also included the dissolution of my brain, Rath Granod and I devised a brain vibration absorber. Since every brain transmits minute electrical force, it stood to reason that this force could be attracted and held by a specially constructed magnetic device. The force of a concentrated thought, its electrical output value, could therefore be held steady on the magnet once the thought was emitted—and, electrically speaking, that brain emanation became a pilot-energy linked to the whole energy. Thus, my last concentration, before being converted into energy, was 'Reassembly through Elna Folson, on Earth'. . . .

"Then I was in the blackness of

pure extinction, but that trapped thought-impression remained, and was despatched with my energy through space. Arriving within proximity of Elna the electric power of that thought vibration sought its opposite in energy charge—Elna's brain emanations themselves. It so disturbed her she couldn't sleep, but it was some time before the force of it broke her own brain energy output, and simultaneously that thought vibration resolved itself back into matter, becoming again my brain. Instantly afterwards my body energy was retransformed in the same way—and so I came to Earth! The only known way to reach here. Now I am here the rest will be easy, for by this process Earthlings will be sent to Ondon."

"You could have come in a space ship," I commented.

"True—but this other way is the better. I can send hundreds to Ondon with the speed of light by this process, now I have proved it can be done. . . ."

"Jelfel, I was ordered to come to this time machine to take it to the Age of Intelligence—to there consult a brain that could conceivably find a way of stopping your damnable plans—"

"You can spare yourself the task, Commander," Jelfel intervened, his hand raised. "You have seen what Ondonian science can do—has changed the time of your world, even. Nothing can stop us now—you are powerless against us."

I resorted to sudden supplication. "Jelfel, intelligence is power, I know, but it should also beget mercy! Why not turn that glorious mind of yours to helping the Universe on its way, to uplifting the lesser intellects, teaching them to understand the immen-

sities of time and space as you understand them. . . ."

His cruel face set as hard as granite at that. "Commander, you will discover, if you live long enough, that as you increase in knowledge of material things your sentiment for them will proportionately diminish! Until at last you will see human beings, and all matter, for what they are—*chemicals*! Just evolved chemicals Commander, three parts water, walking about with puny intellects in a glorious young world, multiplying upon themselves—the affinity of one sex for the other, as positive will always attract negative. . . . No, to be kind to such stumbling, groping intellects would be sheer futility. . . . You think nothing of exterminating pests, if it is to your advantage—so it is with us. You had the brains to wreck our world, but only because you were given such brain power by a higher intelligence than mine—but that has passed. Jupiter was a miserable planet enough for brains such as ours. Ondon is, if anything, worse. An unpleasant world, Commander. We must have a young world, and that world is Earth! We cannot come in our own form, as you know—only I am the physical exception to our race, and even I have artificial arms and legs. We cannot come so cramped and uncomfortable as that, so the only alternative is to transfer our brains to the most healthy of your humans, and remove theirs for investigation—unless a better use for them occurs to us. To you, maybe, a horrible thought—to us, a purely scientific achievement."

"A scientific achievement!" I echoed in a hollow voice. "Good God!"

"And by the way," he went on coolly, "you were all removed from 2004 to 25,000 by a simple process

of Rath Granod's. A Relativity Machine, which incorporates the actual position of time with your relative outlook upon it. Time is relative, when you understand it; hence, during your state of unconsciousness all the ages of Earth were made to move forward twenty-three thousand years, according to your state of perception. Our time being normal on Ondon we need no relative outlook. We have accomplished our object, moved the population of 2004 to where we can attack it. Mainly because I long to avenge myself on the three of you, and also because the actual people of 25,000 might prove dangerous with their knowledge. I take no risks. So long as the Reality Machinery on Ondon is at work, you will remain, to all intents and purposes in 25,000."

"That's some idea," Ronnit murmured, his inventor's soul absorbed.

JELFEL turned to him. "True enough, Ronnit, yet quite simple. I have now a clear field to tread on, unhampered by the thought that I might find myself in a place where I have already been and so find myself on the brink of destruction. . . . After I vanished from your sight last night, I returned to Ondon and had the Relativity Machinery set to work, and also projected my machinery from Ondon to Earth—which I believe you saw, Commander, in the form of shooting stars, if my reading of your mind is correct. I now have a fully equipped laboratory, and you shall be my first subjects. . . ."

I looked at him grimly. "You know I'm not the sort of man to let you get away with that, Jelfel!"

He smiled amusedly. "My dear Commander, it doesn't interest me what sort of a man you are. You will do entirely as I say—No, don't move!

It might prove awkward for you, and I am ever mindful of your comfort."

Held powerless by the nameless force he exerted upon us, the three of us watched in complete impotency whilst he walked slowly to the controls of the time machine. A few swift movements with the controls and there emerged from the silence the familiar hum of the exterior repeller motors. The machine began to rise upwards towards the time-band.

"What's the idea?" I demanded curtly, and he turned his pitiless, green eyes towards me.

"The idea, Commander? Why, surely you can guess? I am using the time machine as an air machine for a change, since it is equipped for both purposes. You will, I feel convinced, be interested in viewing my laboratory."

His slender artificial hand reached out and stopped the machine's ascent before it could actually reach the time line, then flinging in the switch of the propeller motor he set the vessel travelling forward, rising rapidly above the city of 25,000 and at length skimming the tops of the loftier edifices of New York.

During the time his eyes were fixed on the controls and dials, his terrific mental power was such that none of us could break it. We could only stand still and gaze at the hurtling changes of the city below—until at last, after a distance of perhaps fifty miles, we drew close to a little natural basin somewhere to the south of New York, sheltered around the edges with towering trees. It was to me a quite unfamiliar spot; whether natural or created by the forces of Jelfel and Rath Granod I could not even guess.

The time machine dipped slightly and commenced to sweep downwards

towards this depression in the landscape. The trees rose up to meet us. We dropped softly into the valley, and Jelfel switched off the engine.

"I believe Commander, I am what you would call in your Earthly language, a fast worker," he commented dryly. "You are now about to view my laboratory, underground, replete with its apparatus. I leave your brilliant mind to solve how I erected it all within a few hours of the apparatus arriving on Earth. Purely transmutation of elements and mind force. . . . But, come."

He opened the time machine door and we stepped out on the soft grass. Not one hundred yards before us, in the valley side, reposed a peculiar type of triangular door, shining with a glow akin to that of burnished bronze. Towards this door we all moved, and I saw in the eyes of Ronnit and Elna a dawning wonder.

"Behold!" Jelfel said, in an almost needlessly dramatic voice, and stretched forth his hand. We stood perfectly still, following the line of his artificial fingers to the door. To our incredulous amazement the shining triangle slowly seemed to become brighter, transparent, became a nebulous mist, and then vanished—leaving a black and uninviting tunnel beyond. I rubbed my eyes and looked again to reassure myself that the phenomenon was genuine.

Jelfel lowered his hand. "Surely that doesn't puzzle you, Commander?" he inquired sarcastically. "That door is composed of solid light vibration, through which no being or object can pass. Light, as you know, emits vibration. Along the base of that opening is a tube-like machine which emits light-vibration, but is changed into solid form by an adjustment to the atoms of the vibra-

tions. These atoms are, in truth, colossally magnified, to form a complete wall, and a similar light-vibration in the summit of the opening prevents the vibrations from escaping from their appointed place in the opening. At close quarters you would have found that glittering bronze door to be really a mass of swirling atoms and incipient molecules. . . . Now, it is an accepted fact that one vibration can negate or neutralize another. In these artificial fingers of mine is that vibration, controlled by this little cap you see in my palm." He held out his hand and we beheld a circular piece of metal. "Pressure with my thumb on this cap releases a current which is contained in a little battery in my hand itself. The energy passes through my fingers and is flung at the door-vibration. Hence, the barrier at once ceases activity for roughly two minutes—time for us to pass—then it will reform—a barrier proof against practically every known force of destruction. You might try breaking a wall of atoms some time," he added dryly. "Now come. . . ." and he led the way through the opening into the darkness of the tunnel. We followed him in that same condition of mental apathy, to start slightly as the atomic barrier suddenly reformed behind us, and we beheld the daylight outside through an odd, coppery curtain.

"This way," came Jelfel's voice from the gloom, and he brought out a radium torch from his belt. A remarkable instrument that torch; everlasting, gave the brilliance of daylight behind and before us, and emitted no heat. . . . Everywhere, upon all sides, we had again the portent of impending disaster. The brilliance and cruelty of Jelfel was beyond Earthly comprehension.

## CHAPTER III

### VIA ETHER TO OONDON

**I**N dead silence we continued the journey through the perfectly formed tunnel, going lower and lower, it appeared, until at length we passed through another atomic screen and lastly into a vast underground laboratory that brought back to me vivid memories of the amazing Machine Rooms he had possessed in the Age of Problems. . . .

Light gushed forth from above, sudden and dazzling—radium bowls that poured a blueish white effulgence on a wilderness of Ondonian complexity.

"I feel quite at home now," Jelfel commented, smoothing back his jet-black hair. "Pray make yourselves comfortable, my friends. You are likely to be here a little while. Since you can't escape you can have your normal wills back again. . . ."

Something seemed to release itself in my brain. I felt an influx of normal willpower. My tongue was freed.

Jelfel stood for a while looking at the three of us with mocking eyes, supreme in his knowledge; then he shrugged his shoulders and glanced up at the queer Ondonian chronometer on the shining wall.

"In a few more hours it will be nightfall," he remarked. "And sundown marks the end of freedom for the human race. In the interval you may be interested in viewing the planet you are shortly to visit. Here, my friends, is Ondon."

He pressed a switch and the radium bowls expired. The darkness of Erebus descended on the weird laboratory. Came a whirring, then a deep bass rumble. From above there suddenly poured a streaming white-hot incandescence of liquid fire—or so it

seemed at first. We all three turned aside, arms across our faces.

"If you value your eyesight, don't look up," Jelfel counselled. "Look down—on the light-wave screen that reflects the image."

We moved forward and gazed into a sunken circle in the floor, some eight feet in diameter. Upon it there swirled strange, unimaginable shapes of the cosmos; the whole view conveyed the impression of falling through space. At terrific speeds misty nebulae and stars of every magnitude rushed up to meet us, dissolved and passed away. I became inordinately dizzy; my mind reeled in the awful gulf of this soundless rush through space. Then Jelfel's metallic voice steadied me a trifle. Elna seized my hand tightly and I shot a flashing glimpse at her drawn face in the reflected light. Lan Ronnit was staring fixedly.

"The light beam is transmitted by my machinery and at the moment is hurtling from Earth to Ondon, my friends—in the ordinary way a journey of about two hours. But, however, by linking time with the speed of light, the trip of the light-beam across the void occupies roughly four Earthly minutes. You are viewing what the light beam is passing—are stupefied by its stupendous onrush. Ah! You see a ball of dull yellow ahead? Growing slowly. . . .? That is Ondon!"

We resumed our gazing into the light-wave screen and beheld the yellow world of Ondon, one of a system of four planets circling about a dim, sulphur-yellow sun. . . . With the same incredible soundlessness we swept towards the planet, seemed to shoot through the scattered clouds that surrounded it, and still downwards into the dull obscurity of its

craggy landscape. I felt Elna, standing close to me, shudder. I put an arm round her slim shoulders. I did not wonder at her reaction; there was something infinitely alien and inhuman about that dreary desolation. . . .

Within, as it appeared, about half a mile of the surface, Jelfel altered his enigmatic controls and the view became rigid, focussed with uncanny clarity. Another control moved and we commenced, as it were, a steady air-survey of the planet.

We passed over awesome mountain ranges, reaching bare, gaunt crags and escarpements to the greyish-black sky—moved across stagnant lakes, amidst which there moved the most strange monstrosities dwarfing anything I had ever seen even in Earth's prehistoric times—swept steadily over jungles of sickly, yellow trees, across plains and inimical deserts—then at last to a mighty city, not unlike New York itself in appearance, but of far vaster and loftier proportions, a colossus of metal buildings, sprinkled with mighty, rearing towers, monster bridges of glittering metal, and latticed masses of outlook posts. In the exact centre there stood the highest tower of all, quite fifteen hundred feet high, overlooking the entire city. . . .

THE pedestrian ways were packed with insectile Jovians moving to and fro, and in the abysmal streets strange vehicles moved. Overhead shot air-machines of unknown power and design.

"Zagribud—Zagribud the Colossal, the Powerful—my home," Jelfel murmured with an unusually sad note in his voice. "I look upon it, my friends, with the feelings with which you look upon your beloved New York. To me it is everything. Well, I have said the

planet is not prepossessing, but you've probably been interested in seeing what you are to visit. . . ."

Came a click. The vision faded as the discontinued light beam hurtled into empty space and was gone. The radium bowls resumed their illumination, and we stood blinking after the darkness. I turned round and looked at my companions as Jelfel made final adjustments to his amazing telescopic machinery to ensure its safety.

"Here," Ronnit breathed, handing me a square of paper. "Take this. A map of Ondon, drawn roughly from the view we've seen. May be useful sometime. . . ." He paused, and I put the map safely in my pocket as Jelfel turned and came slowly towards us.

"I am rather at a loss to know how to pass the time," he said smoothly. "The sixth dimensional body-stealer might interest you. It is the instrument by which I shall bring human beings here, prior to their projection to Ondon. You see this—" He pointed to a bellying cylinder lying in a metal cradle, to which were linked six stout cables. "This instrument is my sixth-dimensional Rotator. We know three facts, my friends. Time is allied to the fourth dimension; the fourth dimension itself is an angle in space; the fifth dimension is parallel to the fourth only in higher order, and the sixth dimension intersects the third, fourth, and fifth. Hence, it follows that direct transit can only be accomplished by the sixth dimension, for, being a vertical dimension in relation to its neighbours, it follows a straight track where the others do not. It may seem an odd thought to you, my friends, but when humans lie down they are in the third dimension and just under the fourth and fifth. When they stand

up they are parallel with the sixth dimension, but never touch it because between it and them lies what is called hyper-space, and hyper-space is, literally, no dimension. This machine here simply presses hyper-space to nil with the result, that the sixth dimension merges into actuality and any given human, or movable object is absorbed by it. . . .

"Then, magnetism—which is of tremendous negative force and pulls upon the positive magnetism of the sixth dimension—causes the dimension to rotate, and, by calculating the swing of this dimension, or its arc through space, a human being caught within the dimension swings from one given space to another—the end of the journey being here. This machine accomplishes that. Also, it is automatic. If I stand within its radius and press a switch I am automatically placed in any predetermined place. That, as a matter of fact, is how I appeared in your time machine a few moments ago. . . ."

"How do you detect humans, anyhow?" Lan Ronnit demanded.

"By the Emanation Detector." Jelfel's cold eyes turned to me. "I fancy Commander Lee has had some experience of that machine. . . ."

"True," I admitted quietly. "One of your cleverest inventions, Jelfel!"\*

"You honour me," he answered cynically. "Perhaps a demonstration of this Rotator will interest you."

He flung in the switches with the air of an expert and from within the cylinder came a sonorous droning. I fancied an aura of faint green light began to emanate from a circular metal disk supported on arms of chrome-steel above the cylinder. Within that area, I presumed, lay the sixth dimension. Jelfel looked at the mani-

\* "Lines of Time." S. L.



festation pensively, nodded, then moved over to his Emanation Detector.

"We'll try a woman about twenty-seven, dark," he commented in an off-hand tone. "That will be . . ." He swung around the big pointer and looked at the screen above. A vision of New York appeared, rapidly changed to a main street, then slowly focused upon a young woman, carrying a neat, leather case, and walking slowly toward some unknown destination. There was something about her appearance that to me seemed vaguely familiar. . . .

Jelfel chuckled to himself and pressed a two-pole switch linked to the Rotator. In the Emanation Detector screen we saw the figure of the young woman suddenly vanish in a green mist. We caught a flashing glimpse of open-mouthed people staring, then Jelfel shut the machine off.

We waited intently. I stood with my fists clenched. . . . Came a faint whistling from somewhere, a gust of cool air, and a wave of giddiness swept over me as the fringe of the rotating dimension passed near me. . . . A thud.

**T**HE woman we had seen in the city was before us, standing, her eyes wide in fright, gazing about her. As her gaze fell upon Jelfel's ruthless face she caught her breath in sharply.

"So simple!" Jelfel commented with a shrug, snapping the Rotator contacts. "Now, my friends, you have seen how I shall accomplish the stealing of humans. Easy things to steal with their little brains. I might add I have only to widen the area of this Rotator dimension to absorb a crowd all at once. Then indeed will this laboratory be a danger-spot to outsiders,

as it crackles with the energy I shall absorb from these captive beings before hurling them *via* ether to Ondon!"

"How—how did I get to this place?" the woman asked, taking a faltering step forward. "Who—who on earth are you?" She clutched her leather bag tenaciously.

Jelfel studied her, then bowed. "Your pardon, dear lady; you are the victim of a scientific experiment. Please be seated."

He pushed a metal chair in her direction and she sat down with a thud. It was then that I caught a full view of her face and in an instant I recognized her as the Secretary to Templeton, who had made a brief appearance in my flat a few hours before. In that case. . . . My thoughts moved fast. In her leather bag was the deadly Franton atom-destroyer! She recognized me at the same moment, and would have spoken had I not, by facial expression, bidden her to be silent.

From then on I lived in fear that Jelfel would read her mind—but evidently he was not concerned with her, now he had brought her hither to prove his Rotator. I thanked the Fates that, by sheer fortuity, had led him to capture a girl of the Secretary's age and coloring.

"The next move to make is to take a batch of humans and then, by means of my radio, inform Rath Granod of their energy voltage," Jelfel said calmly, looking around. "It will then be his task to find the exact equivalents on Ondon to be the recipients for reassembly of Earthlings. . . . Now, my friends, if you will pardon me for a moment I will inspect my energy-sealing tubes for the coming transit *via* ether. As you are to be the first travellers I must be assured

of your safety! And, by the way, please do not tamper with anything. I should hate to find ashes upon my return. . . ."

He turned and walked with his meditative tread from the laboratory into some unknown area of complication adjoining it. Instantly I turned to the Secretary.

"Miss Jeron?" I asked quickly.

"Yes. You are Commandant Lee, of course? I was on my way to the arsenal, following Templeton's instructions, with this atom-destroyer, and—"

"Never mind that," I interrupted her brusquely. "That atom destroyer. Give it to me, quickly."

She handed across the leather bag. I pulled out the small but deadly efficient atom-destroyer and slipped it in my pocket. The bag I hurled into a far corner.

Miss Jeron gave me a bewildered look. "Commandant, what is all this about? Who is this man? What are we—"

"This man is Elnek Jelfel—a fiend, a scientific genius," I answered grimly. "We are in deadly danger in this place. Do whatever you can to keep your thoughts jumbled up in case he tries to read your mind; leave everything else to me . . . . Know anything of the workings of this atom destroyer, Miss Jeron? I'm a bit foggy on it. It's a new discovery, isn't it?"

She nodded. "It works on the friction system. It generates tremendous friction inside that little box by using tungsten rollers compressed one against the other. The little motor attached starts the rollers going and tungsten, being so tough, stands the heat but generates the friction. The friction is transmitted to a transformer which converts this enormously high percentage of energy into a

current of repulsive electricity, which Franton claims will break down almost any known earthly atomic or molecular structure. It can also be opened and altered to become a repulsor."

"You know a lot for a Secretary," I murmured. "I think—Steady, here comes Jelfel again."

He came slowly into the laboratory again, and I watched him narrowly.

"Not long to sunset my friends," he commented pleasantly. "Everything is ready. I see no reason why we cannot start now. I think we will despatch Miss Elna first; she is so adaptable with her particular amount of energy. You will come second, Ronnit; you third, Miss Jeron—I think I have your name correct according to your brain; the only thing I can read sensibly from your confused mentality—and you, Commander, will be last. I have so strong a desire to show you *everything* before you go!" And his green eyes blazed malevolently upon the four of us.

Instantly I felt again that terrific hypnotic power, but, try though I would, I could not overcome it. I realized the fatality of being so mentally enslaved; it rendered all my rosy ideas for escape useless. . . . With quiet helplessness the four of us followed Jelfel into the adjoining apartment, and there beheld the amazing apparatus for projecting the hapless Earthlings through the void.

Jelfel paused with his hand resting lightly on the switches of his amazing contrivance, lined at orderly intervals along the side of an oblong table and directly beneath a wilderness of lenses and curious bulbs and tubes.

"I have communicated with Rath Granod," he said in his metallic voice. "It appears that, in the ab-

sence of myself from Ondon—for, as you know, I am Miss Elna's absolute energy counterpart—she will have to be materialized through an Ondonian named Lep-Nooze, who also possesses the same energy equivalent. Now, Miss Folsen, lie upon this table, if you please."

WITH the quiet precision of one mesmerized, Elna did as she was bid, lying flat, gazing upwards into the very heart of that weird, many-lensed mechanism. I noticed for the first time that the apparatus was casting a bluey-white glow upon her recumbent form. Jelfel surveyed her, nodded silently, then moved to another switchboard littered with devices which I can hardly attempt to describe.

"The energy tubes," he said casually, and, as he threw in a master-switch, I fought again to reassert my will-power, but to my horror failed utterly. Ronnit, Miss Jeron, and I could only watch helplessly. . . .

Of a sudden the great laboratory became alive with sound. Strange, gushing tumults came from the enigmatic engines beneath the projection table; electricity crackled and flashed from the engines controlling the energy tubes. Elna herself did not appear to alter in the slightest, beyond the fact that her eyes closed slowly, and her chin dropped with the coming of unconsciousness. Jelfel threw a glance at a flickering meter-gauge on the wall, pulled another switch, and the noise ceased.

"Miss Folsen is now no more," he said calmly. "Her energy, which is her life, is stored in those transparent cylinders. You see the dial reading . . . Now, that energy is finally broken from her body and hurled to Ondon—*so!*" Came more quick

movements amongst his machinery, more noises and further flaring of deadly electricity, then for a space the room seemed to dance with heat. The needle on the meter-gauge fell to 0.

I turned to look at Elna. . . . To my dumbfounded amazement the table was empty!

I was still staring when the noise altogether ceased. I looked at Jelfel, feeling utterly strangled in mind and body.

"There you are, Commander," he said pleasantly. "Elna Folsen has gone to Ondon, and will rematerialize into her original form through Lep-Nooze. Her brain emanations, as I explained before, followed her energy, and as the atoms of her body must be linked with her energy her body has gone as well — through space, to my own planet. You, Ronnit, are next."

The boring green eyes swivelled to the young inventor, and he moved slowly toward the table.

I felt, I knew, that the whole thing was devilish—yet what could I do with my mind so subjected? Elna had gone into the void, the first in a literal massacre of the human race. Again I struggled with enormous effort against the super-brain, and again came futility as the answer. I took one lurching step forward toward the table, but the eyes of Jelfel held me there. I could move no farther. . . .

Then came the unexpected. Miss Jeron, overcome by the terrible strain and events, fainted clean away. She pitched forward into me, and I staggered beneath the impact, being unprepared for it. As she fell inert to the floor I flung out my hand to save myself stumbling — gripped a pole switch on the edge of the table. Instantly Jelfel shouted hoarsely.

"Don't break that contact, you fool! You'll blow us to hell—!" In an instant he was upon me, seizing my hand and tearing it away before I could pull the switch down beneath my weight. But in that instant I seized my opportunity. In his intentness to stop my action he had ceased to exert his mind force, and my own brain instantly returned to life. I struck him a resounding blow on the jaw and he staggered away from me on his heels.

Lan Ronnit, released also from his mental and physical apathy, slid off the projection table and joined me in struggling with the master-scientist. For a space we pitched about furiously on the shining metal floor—then Ronnit, lean and intent, whipped up a metal bar from the floor by the switchboard—a spanner of sorts I think it was—and struck Jelfel a terrific blow on the forehead. He sank limply beneath the impact and became still.

"Either you've killed or stunned him," I breathed. "In any case he's safer dead. Stand clear, Lan."

I whipped out the atom destroyer from my pocket and ruthlessly pressed the button. The motor hummed, but nothing else seemed to happen. Jelfel remained where he was on the floor, whereas he ought to have been radiated out of existence.

"The damn thing's no good," Ronnit growled. "Which reminds me, let's get that battery from Jelfel's hand to bust these doors." He dropped on his knees beside the unconscious Jovian, but to our alarm we found that the disk of the tiny machine within his hand had been smashed irreparably in the conflict.

Ronnit and I looked grimly into each others' faces.

"What now?" I asked gravely. "The

Franton machine is no use, and Jelfel's 'doorkey' is useless. Any suggestions?"

He squatted in thought for a space, then slowly rose to his feet. "I've got an idea," he said in a peculiar voice. "Give me that Franton destroyer, will you? Carry Miss Jeron. You're the tough egg of this outfit."

I gathered up the limp form of the Secretary in my arms and followed Ronnit to the first atomic door. He levelled the atom destroyer carefully and pressed the button. Instantly the atomic door blasted into sudden, blinding incandescent fire. The air became thick with pungent smoke. In two brilliant flashes of light the light-wave tubes at the base and summit of the door ripped themselves asunder with terrific recoil.

I looked at the dark vista of tunnel before us, smoke curling around my nostrils.

"The machine worked that time all right," I muttered.

"Yes, and I'll tell you why," Ronnit responded. "It is attuned to all forms of earthly matter. Light is a universal property, therefore it comes under Earthly classification. But Jelfel is *Jovian* matter, composed of Jovian atoms and molecules. That is why he didn't disintegrate. This machine isn't tuned to his body frequencies. . . . But let's get going whilst we're safe. We'll wipe up the earth along with this blasted lab. once we can get some energized irali-um" (the most powerful explosive known).

Our progress was hampered, so far as I was concerned at least, by the weight of Miss Jeron, and the pitch darkness, but at last we came to the second and final atomic door. This, too, we ruined and blasted into nothingness and found ourselves once

again in the little valley, with the evening sky above.

"Thank heaven!" Ronnit breathed gratefully, wiping his brow. "There's the time machine, too—just as we left it. Come on. . . ."

Increasing our pace we rapidly crossed the little stretch of grassy floor and entered the machine. Laying the Secretary carefully on the wall-couch, I threw in the air-plane switches whilst Ronnit sealed the door. . . .

In another moment we were in the air, turning about, and heading toward the misty immensities of New York's weird skyline far down on the western horizon.

## CHAPTER IV

### THE SHRIEKING PUFF-BALL

THE moment we landed back in New York we made for the Time Corporation Building. Miss Jeron, thanks to the ministrations of Ronnit, had recovered during the trip, and accompanied us to the Building. We entered the Debating Room with a rush, just as the President was preparing to depart.

"What's the matter, Commandant?" he asked sharply, divining from my expression that something was seriously amiss.

Hastily I related the details of our weird experience. "Elna Folsen has been hurled to Ondon—she is the first of hundreds—thousands!" I panted. "Something has got to be done right away. Jelfel means business, unless by a lucky chance Ronnit has killed him with that bar, but I don't think so. When he recovers trouble begins in earnest. What must I do, sir? Your orders?"

Templeton considered with that

calm, mental research for which he was remarkable.

"Elna Folsen must, of course, be rescued from Ondon," he answered at length. "But before you start for Ondon, Commandant, you will head a raiding party to this hideout of Jelfel's and try by every known means to exterminate him. You are at liberty to use whatever methods you choose. . . . That is all."

"Very well, sir." I stood back and saluted.

"About the Franton atom destroyer," Miss Jeron remarked. "Is the Commandant to keep it?"

Templeton nodded. "Certainly. Better in Lee's hands than in the arsenal. I will see that Franton receives notification."

Lan Ronnit and I left the Debating Room and shortly afterwards had reached my flat. In one stride I had reached the televisor and was speaking to Benruf, leader of the Military Force of New York.

". . . every known device," I concluded. "Ray guns, energized iralium, everything. And instruct your men to be armed with Franton atom destroyers. You can have them made very quickly at the arsenal. Get plans from Franton. Be ready at the ninth hour. I will join you at the Military Grounds."

I switched off and turned to the waiting Ronnit. "Lan, that Double Entity Machine of yours, which you had to leave in 2004 when time changed. Can you have others made right away?"

"Sure I can," he responded readily. "I'll get several made right away. I have the plans with me, fortunately. I'll be here tonight at half past the hour of eight. That suit you?"

I nodded, and the door closed behind him.

Deeply troubled, I sat down to think things out. My mind was solely concentrated on Elna, my closest and dearest friend. I tried to picture the unnamed horrors that might befall her on the world of Ondon. I was consumed with a sudden desire to rush out, into a time-space machine, and start for Ondon right away. Then I controlled myself. Elna's life was certainly valuable, but the fate of all humanity was even more to be considered. . . . I got up and walked to the window.

Night had completely fallen now and the view of light-drenched New York was before me.

It was as I stood at the window that I became the spectator of most peculiar happenings. . . . Out of the darkness of the eastern horizon there gradually crept a green tentacle of light. It hovered for a space above the main street immediately below me, packed as the street was on the pedestrian ways with people—then suddenly it swept downward.

I watched, my jaw lolling stupidly. People began to melt and vanish before my very eyes, seemed to melt into the air. Within five minutes a great section of the pedestrian way was almost empty. The green ray recurled on itself in an amazing manner and abruptly snapped into extinction. Then came the din of alarm sounds, whistles and hoots, as remote controlled armored cars, aware of the occurrence, came speeding into view.

"Jelfel's Rotator," I muttered, biting my lip. "He cleaned up nearly five hundred souls at that sweep. Good grief, where is it all going to end. . . ." I looked again, about to turn away, when another occurrence astounded me. A ray of pure white light this time, blindingly brilliant

near the horizon, then fading toward the zenith, was projecting into the sky at a sixty degree angle. I did not need to think fast to realize that it was ether tube machinery at work—the energy beam itself hurling the helpless Earthlings to Ondon.

I swung around and looked at the electric clock. An hour yet before Lan Ronnit was due. An hour and a half before the attack on Jelfel was timed to commence! I clenched my fists and took a step forward, overcome with indecisions—only to realize I could do nothing but wait. Accordingly I turned back again to the window, taking heart very slightly as time passed and there was no repetition of the green Rotator beam. The white energy beam, however, still projected unerringly into space, directly in line, I presumed, with the unknown world of Ondon. That fact began to take hold on my mind. Directly in line with Ondon. . . . Without something to guide me, I could never even find Ondon! I might search all the immensity of space for a lifetime and be no nearer. After all, why should I delay. . . ."

**W**AS ever a man torn more between the love for his friend and the duty to his planet?

Then suddenly I made up my mind and set off to seek Templeton. He had left the T.L.C. Building, but I found him at his own private flat, standing at the window gazing out with troubled eyes over the city. At my entry he turned sharply.

"President, I have come to ask your permission to leave for Ondon at once," I said earnestly, standing before him. "Nor do I want any molestation of Jelfel for a few hours. In that time I hope to reach Ondon, moving, as our space-fliers do, at the



speed of light. Unwittingly, Jelfel will guide me to the planet."

"How?" Templeton asked curtly, his face none too reassuring.

I outlined to him, emphatically, the guiding nature of the energy beam.

"Let Lan Ronnit take charge of destroying Jelfel on the earth, and I will attack from the Ondonian end," I urged. "I only want one companion—Anton Frot, the mathematician."

"You will go without weapons?" Templeton asked incredulously.

"Not altogether. I'll call on Ronnit and get a Double Entity Machine from him. That, and a few Franton atom-destroyers, are all I need. Will you grant me permission?"

The President considered for a space, then to my intense satisfaction nodded.

"Very well, Commandant. I know your resourcefulness in danger. You may go, and Heaven grant that you'll succeed. You obliterated the menace once—but unhappily only temporarily. May you really win this time. Until I see you again, good-by and good luck."

He shook my hand solemnly. I saluted and hastily departed, making my way instantly in the direction of Lan Ronnit's abode. . . .

During my journey I found the main street in a condition of terrific confusion. . . . Police, ordinary people, and scientists were all together in a jammed mass, searching, explaining, and baffled. Some were crying out for their lost ones, others were cursing the police for their slowness. . . . One incident stood out predominantly, to me, as I made my way through the throngs—A little boy, standing isolated from the main surgings of humans, was weeping copiously for his lost mother. At that moment the heinous side of Jelfel's

plans came home to me more vividly than ever before. . . .

Then I was through the jam, walked almost at a run down several side streets, and at last reached Ronnit's flat. He was in the act of packing up a Double Entity Machine even as I entered.

"Hello, Lee! What's the trouble?" He looked up sharply.

"You know what's happened, of course? The pedestrian-way tragedy?" I demanded.

"Certainly. Jelfel's Rotator; but what—"

As fast as I could I made the details clear to him.

"I'm leaving at once for Ondon with Frot. You're going to wipe out Jelfel, if you can, three hours from now. That's the arrangement. The time is later because I want Jelfel left free long enough to project that beam of his into space. I also want one of those Double Entity Machines."

I picked up the machine from the table—it was not large, and slung it over my shoulder with the straps provided for the purpose.

"I don't know when I'll be back, or what I shall do," I said grimly. "If it's within human power I'm going to give the Ondonians something to think about!"

Ronnit smiled faintly. "As for Jelfel, leave him to me," he said, tightening his lips. "My own ambition in life is to get the better of him—and perhaps this is my chance. Good luck, old man. . . ."

I shook hands and hurried away. Ten minutes later I had picked up Anton Frot, the mathematical genius who had once belonged to the Age of Problems and who was directly responsible for the destruction of Jupiter. It did not take long to make things clear to his active brain, and

presently we were in a fast air-machine heading for the space grounds.

A digression here is necessary, I find. Before my first experience with Jelfel, space travel before the time of the Age of Intelligence had been impossible — but thanks to Jelfel's own inventions — which had come into our possession at his vanquishment — we were now equipped with space-time machines. These marvelous vessels, whilst incorporating all the necessities of a time-travelling machine, also possessed the power of emitting *their own substance* at either end of the vessel—the substance being ejected into the ether by powerful electric currents. This substance, infinitesimal in amount, created reaction by pressing on the dense ether, and the recoil at maximum hurled the vessel through space at the speed of light. . . . The idea would, undoubtedly, have been in possession of all later times, for all Ages to use, had not Jelfel effectively kept his secret until his almost individual war with me. Hence, it was not until the year of my second battle with him that space-travel became really possible. . . .\*

Hastily alighting from the air-machine we made with all speed to the flood-lit time-space machine hangars. An army of mechanics hovered expectantly as we appeared on the scene.

"Make way for this machine to leave instantly," I said sharply, and entered the bull-nosed vessel with Frot close behind me. In a few moments the massive door had closed and the lights were on. I turned to the familiar controls and watched

through the window for the departure signal.

Three minutes later it came. I pushed over the lever to start the engines and we rose steadily into the air. At one thousand feet up I stopped and pushed the switch that placed a negative current over the time-machinery and the carrenium alloy, thus making it impossible for it to engage with the time-band and changing it into a space-ship.

Anton Frot looked through the window with his keen eyes.

"Jelfel's ether beam is directly ahead," he said. "Are you making for it?"

I nodded, and started the engine again. We shot toward the north with rapidly mounting acceleration, then as we neared the blinding beam I slackened speed.

"You'll never be able to follow that beam," Frot said dubiously. "See, it fades above. What are you going to do?"

"Once we're in its path we can chart a straight line from it," I answered. "That is why I brought you along. Your mathematics can do it. It involves a high order of computation—to compute the bend through space, the movement of Earth in relation to Ondon, and so forth. . . . Just a minute, I'll move the ship into a straight line, then you can get busy."

AS I operated the controls we moved slowly toward the beam of light. Far below in the gloomy abyss we could discern the tiny dark spot that marked the valley where lay Jelfel's domain, and from it was rising this immense beam into the infinite—sheer energy.

"How I'd love to blow the damn lot to Hades!" I breathed, looking down.

\* Time and time-space machines at this period were also equipped with "Instantaneous Time Switches," making any length of time trip almost immediately accomplished, instead of great intervals having to elapse between times of departure and arrival. S. L.

"You mightn't manage it," Frot answered calmly. "It wouldn't surprise me if that place isn't shielded with vibration or something. Don't forget we're up against a mind of super-proportions. . . . Ah, we're approaching the beam—"

He became intent and earnest at the window, staring over my shoulder as I guided the vessel toward the blazing mist. We touched the edge of the beam, and . . . I can hardly remember what happened afterwards. The entire time-space machine suddenly swung around dizzily, started moving forward at stupendous velocity, and flung Frot and me to the floor. We lay helplessly clutching the legs of the instrument board, striving vainly to get to our feet. But the more we tried the more a frightful, squeezing pressure bore us down, as though a massive, invisible vice were closing in upon us. Fire-balls burst crazily before my eyes, my ears were roaring. . . .

I awoke with Anton Frot's arm around my shoulder. The light in the metal roof was still burning, shining on his lofty, almost bald head. The piercing eyes regarded me with intense anxiety.

"All right again, Lee? That's fine." I tossed down the glass of ekrimar he handed to me and felt fresh life surge within me. "Just the acceleration," he explained. "For about the first time in history we've had a free trip through the void. The ship got caught in that energy beam—and besides hurling the energy of human beings to Ondon at a speed far ahead of that of light, it hurled the ship as well. At any rate we're being taken in a direct line, just as you wished. See ahead, there. That must be Ondon itself."

I walked unsteadily to the win-

dow—our floor gravitators were, of course, in action—and looked ahead.

The usual vision of interstellar space met my eyes; the familiar awesome sight of supernal blackness, studded with stars and suns. A vision of changing time—of systems about to be born; at their zenith; and decaying. . . . And ahead a system of four yellow planets grouped about a sulphur-yellow sun.

"Pity we've no means of identifying the system," came Frot's impartial tone. "It may be the Ondonian solar system—and it may not. We'll have to—well, take the energy-beam's word for it, so to speak."

"No; I've seen Ondon through Jelfel's telescopic stuff," I answered quietly. "That is Ondon straight ahead the largest in the group, not far short of the size of Jupiter. Of course, Jovians would choose a planet similar in density, I suppose." I glanced at my electric pulsation wrist chronometer. "Two hours exactly," I commented. "That is the quickest trip we ever made, and incidentally a few mental gymnastics for you, Frot. If light travels at 186,000 miles a second, how far is two hours' distance from Earth?"

"One billion, three hundred and thirty-nine million, two hundred thousand miles,"\* he replied, with the speed for which his mathematics were remarkable. "That is granting the beam moved us at the speed of light; I am inclined to think it was even faster. However, we are about three times as far away from earth as Jupiter used to be. A different system, a different sun. H'm, I'm none too much in love with our speed, Lee. We'll crash at this rate unless we can turn aside. . . ."

\* Taking the speed of light at 186,269 miles per second, the result is 1,341,122,400. This is more accurate.

Even as he spoke the Ondonian system had become perilously close. Awaking to sudden activity I turned to the controls, but all the efforts of the Particle Disintegrators at either end of the vessel failed to move it from the energy beam. I looked helplessly at my numerous switches, at the vision of the hurtling world upon us, then back at Frot. He thought for a moment deeply, then a gleam entered his eyes.

"Throw the time machinery into commission," he said quickly. "By computation, it seems to me that the equivalent of sheer energy to the speed of time balances as equal. Anyhow, it's a chance. Put on the time machinery and move forward exactly twelve hours."

**P**UZZLED completely by his mathematics but willing to try anything, I obeyed. I adjusted the dial to the hair-degree necessary for only twelve hours' movement. Incontinently the machine seemed to careen through a wide circle. It lurched slightly; the view through the window shifted and blurred; space seemed to interweave on itself: It dissolved, changed miraculously, and slowly merged into a mountain range with a vision of sickly yellow trees in the foreground. The time-space machine was steady.

I stood blinking doubtfully and Anton Frot took a deep breath.

"I was right," he said impartially, crossing over to the wall couch and lying down at full length, as was his custom when theorizing. "Quite right." He placed his finger tips together, and it seemed the little veins at his temple pulsed more noticeably. "You see, Lee, energy at its maximum must have a mathematical numerical value. The energy content of Ino Carreno's time-band is 186,000

frequencies per second—the same number as is the speed of light in miles per second. So, as the time-band frequency moves at the speed of light, the equivalent of one divided into the other—if one uses algebra to assist one's calculations—produces unity. Hence the chances of dissolution in trying to move from one condition to the other were also even. You understand? Carried by our momentum we still moved forward in space, but in time as well. Hence we struck Ondon really this time yesterday, but shifting in time we arrive at this point quite safely. In that time Jelfel has shut off his energy beam, which has given us a safe landing. Our normal repellers have worked and saved us from destruction—there no longer being the energy beam present to hurl us forward."

"I don't pretend to understand your calculations, Frot," I answered. "You're quite right, though. The automatic repellers have given us a soft landing. . ." I paused and looked out of the window again. "That view I had in Jelfel's headquarters showed me all this," I murmured. "Which reminds me, Ronnit made a map."

I pulled out the piece of paper from my pocket, upon which were roughly scrawled the details—the mountain ranges, the lakes, jungles, deserts, and the approximate situation of Zagribud itself. As I looked at the map an odd thought came to me.

"Frot, since the time-space machine has kept to a straight line we ought to have landed very close to, if not in, Zagribud itself, since that is what the beam was directed to."

Frot languidly rose from the couch. "For a time-liner pilot you amaze me," he commented with refreshing candor. "Ondon, in the twelve hour gap, has turned on its axis; hence

we're at a different point on the surface. We can perhaps follow our course from that map. Let's arm our selves and start. . . ."

We partook of a hasty meal, then proceeded about the task of equipping ourselves with provisions and arms for the first sojourn on this uninviting-looking world. I took the Double Entity Machine on my back, and both of us kept ray guns levelled. Into a back section of my belt I slipped the Franton atom-destroyer and only wished I had another one with me for Frot.

"It's better to explore on foot," I answered, when Frot inquired why we didn't use the time-space machine and fly over the landscape. "This old bus may get stolen, and if it does it's all up with us. . . . Come on."

THE air of Ondon was exceedingly dense. At first it over-supplied the lungs, but by taking shorter intakes of breath we overcame the difficulty. Sound seemed to be triplicated. The clank of my ray gun as I slipped it into position sounded like a chain being dropped on concrete. Anton Prot turned and spoke, but so violent was his voice he had to resort to whispers, and even then every sibilance of his breath noticeably whistled.

With heavy, dragging footsteps, for the gravitation was tremendous in comparison to that of Earth until one became accustomed to it, we set off toward the distant mountain range. If, as I hoped, the map was fairly accurate, we were making in a straight line for Zagribud, though how far ahead it was we had no means of knowing.

Three quarters of an hour of hard progress beneath the hot, sulphur-yellow sun brought us to the edges of

the yellow jungle. At close quarters the trees were the most unpleasant creations of vegetation I ever saw. Bilious yellow-green in shade, with perfectly oval leaves of razor keenness along the edges. Our first encounters with them resulted in so many cuts we had to steer a very careful course through the evil-smelling growth. Then suddenly Frot paused and pointed.

"What's that thing?" he asked in amazement.

I stared in the direction he indicated and beheld something akin to a mammoth puffball rising from the vegetation. It expanded even as we watched it, then presently it began to emit the most extraordinary noise. A shrill, piping whine that increased rapidly with the moments, until we were forced to clap our hands to our ears to shut out the awful row in the dense air. Even then the sound increased until it came through our stopped ears—distracting, head-splitting. Our brains swam before the intensity of it.

Frot made dumb motions with his face and at last I understood. I looked down at a branch at my feet, took a step back, and then kicked the branch as hard as I could against the powerful gravitation. More by luck than judgment the branch hit the puff-ball, and instantly it disintegrated. The noise ceased.

I unstopped my ears and wiped the streaming perspiration from my face.

"Great guns, what a row!" I gasped. "What on earth was it, Frot?"

"Nothing on earth," he answered somberly. "An Ondonian creation." His keen eyes became thoughtful. "Death by sound, Lee. That's how things work in this jungle—and why not? Nature always adapts itself to the surrounding conditions. Gravita-

tion here is a hindrance to speed, so Nature makes use of another property, amongst plants anyhow. The dense air—magnifies sound. If sufficiently powerful, sound can kill! Let's look at that thing. I've got an idea."

We went over to the disintegrated puffball and found it to be apparently only a similar species to its earthly cousin. A closer examination, however, at last revealed two minute cups in the heart of the thing—the seed case—which had been split asunder by the blow of the branch I had kicked. Nearby lay a very thin but amazingly tough oval of skin-like stuff. Putting the whole thing into position again—the two half cups with the oval between, we were rewarded by a repetition of the ghastly row, which ceased the instant we let the halves fall apart.

"Lee, a great idea is forming," Frot murmured. "We have a weapon here—and a deadly one if properly handled. Sound seems to be the one thing Jelfel hasn't dabbled in yet. You see, these puff-balls grow very fast—the same as on Earth—and as they grow, instead of giving forth a flower and then dying, they tighten up until they shriek by these halves tightening up. This noise vibration results in them falling to pieces and so scattering their seeds to the wind. . . . Very interesting! What do you know about sound?"

"Precious little," I grunted.

"Too bad. Evidently you don't know that the greater the number of vibrations to the second, the higher is the pitch of the sound, and that the lowest sound a human can usually

hear is thirty vibrations a second, and the highest twenty-five thousand a second?"

"After all, we didn't come to Ondon to discuss sound," I answered testily. "All this time I'm thinking of Elna—and the human race. Come on. . . ."

"In a moment," he replied calmly. "If I have an idea that can help the human race win this battle against Jelfel I'm going to mature it. In ordinary air, Lee, sound waves travel at one thousand and ninety feet a second, in sea water at fifteen degrees Centigrade at four thousand nine hundred and thirty-six feet a second. We may assume that the air here is between the two velocities. . . . H'm. Yes, Lee, a great weapon. I think, with a little computation and something that will make good magnetism, I can make a sound machine. I'll go into the details later."

He picked up the core of the shrieking puff-ball and placed it in his pocket, tied inside his handkerchief. Then we started off again through the jungle, to come almost immediately face to face with an object like a nightmare diplodocus, only far and away larger. To this day it remains a mystery how such a mighty creature moved with such ease on so strongly gravitative a planet.

Two immense saucer-like eyes transfixed us with a baleful glare. Somewhere back in the poisonous undergrowth a mighty tail, twitching with anger, snapped down saplings and small trees.

Frot and I stood for the moment, as though paralyzed. . . .

## END OF PART I

*The second part of this story carries out the engrossing plot and keeps the strange and enigmatic character of Jelfel as ever, in the foreground.*



# LANDSCAPES OF LUNA

By BOB OLSEN

Cleaving the void with our rocket tubes blazing  
**H**urtles our craft on its hazardous race!  
 First men are we to see sights so amazing  
 First of all humans to voyage through space!

**H**undreds of thousands of miles from our flier  
 Swims Mother Earth in a sable-black sky.  
 Blazes the sun like a huge ball of fire;  
 Luna, beneath us, rolls regally by.

Vistas unfolding: Stupendous! Enthralling!  
 Sea of Tranquillity: Silvery! Rare!  
 Clavius' crater: Colossal! Appalling!  
 Frosted with jewels of crystallized air!

Far to the south loom the Liebnitz and Dorfel  
 Mountains, their flanks swathed in Stygian night.  
 Seven miles high thrust those jagged peaks awful  
 Gilding their crowns with the sun's ceaseless light!

Interest? Naught are my comrades displaying.  
 Wonder? They leave all observing to me.  
 Bridge interstellar we four have been playing;  
 During this hand, I'm the dummy, you see!

# The Radium Doom

By MILTON R. PERIL

*In this story, the east and the west meet and the atmosphere of the cosmos is what fills the tale. The only reason why we do not praise this story, is that it will be found to take admirable care of itself.*

## CHAPTER I

### THE BAS-RELIEF

**D**R. SHEFFIELD relaxed in his upholstered chair, his eyes falling on the blaze which illuminated the snug book-lined library, from its haven in the fireplace. The crackling flames were a myriad of colors. They played noiselessly with the stillness of the lore-stocked room, chasing each other along the carpeted floor, creating elongated flashes which seemed to speak to each other in understandable fashion. The middle-aged scientist watched fascinatedly the bluish taper of fire rise and fall amidst a curling consuming clutch of red; fire always centered his thoughts, made him think more lucidly.

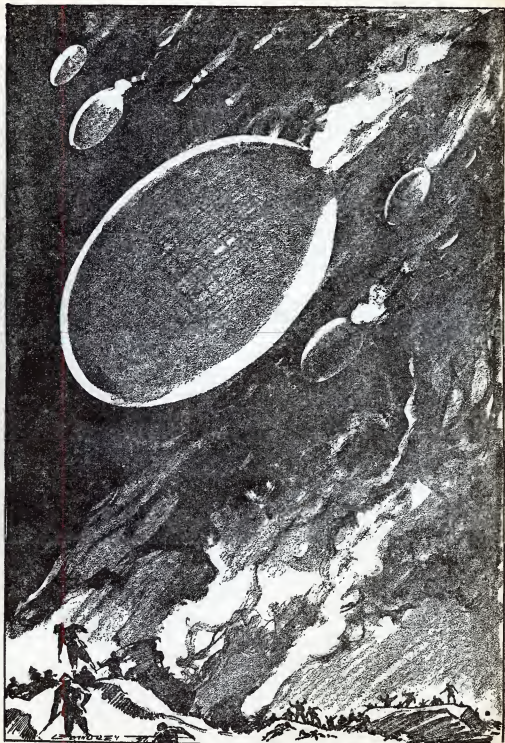
Now he stared into the conflagration and gave himself over to the thing which occupied the foremost of his thoughts—had occupied it for many a long and tedious day.

He had thought that the presence and value of the bas-relief which he had unearthed in the Gobi desert had been unknown to the general world outside the realm of science, but Anderson had just called him and told him that things were just about going to break for them. The different archaeologists, with whom he had been in consultation since the uncovering of the gold bas-relief, had all prom-

ised silence concerning the existence of it; though they had so far been unable to tear from its grasp its meaning, they all realized that it contained something vitally important. The little they had been able to understand stood out prominently and direly. Always that elusive substance which would explain the whole thing clearly evaded their active and brilliant minds.

To begin with, the gold carving was old. That much they could easily see and feel without being misled. The characters presented thereon were of an ancient touch. It all manifested an ancient civilization—but though the world of science knew that the yellow men had been civilized far back, ages ago, long before the white men had been imbued with the expansion of their minds, this bas-relief contained something which did not coordinate with the unearthed civilization of that folk. It was contrary to the general run of findings of that long-ago educated people.

That was what Doctor Sheffield and his associates had gathered after many long and interesting studies of that gold relic. Doctor Sheffield had spared no time or money to strike the deciphering key to this readily recognized thing of tremendous importance, but each effort had met with a negative result, like the others. To a man like Sheffield, with the inde-



*Within a few hours scores of meteor-like conflagrations were visible in the heavens above and all knew that they were the ships of the Martians, terraqueous eel-men disintegrating into uncontrollable cinders and ashes.*

fatigable energy he possessed, especially when something taunted him and refused to bow to his sharp and tirelessly boring mind, this snag of a thing aroused him to the fullest extent.

The fire crackled on. He broke the magic spell that held his eyes glued to that picture of living colors and turned to the small table at his right elbow, a table laden down with books, scripts and small fossils. Reaching down to the bottom drawer, he unlocked it and drew out something wrapped in swabs of cotton. Gently, he disentangled the gold bas-relief from its bed and placed it tenderly upon his lap, in the flare of the fire in front of him.

The precious article must have weighed about four pounds; and though it was valuable as a mineral it wasn't that element which made it stand out so startlingly. Rising from the base of it were about three-score finely carved characters, which at first glance looked like old Chinese prints. It was a beautiful piece of workmanship, so exquisitely designed that it caught the eye and held it; near the edges strung a fine lace of woven gold, spun from the very heart of that rectangular substance of art; it seemed as if he could feel with a gentle finger the delicate living links mesh along his skin.

**H**IS eyes rested upon the enigma which had enfolded him for so long, and though his alert glance bristled under a bank of outcropping brows, bristled because in his lap lay an unanswerable problem, he fondled it with care, and his scientific heart absorbed it with admiration. It was an object of profound art and to him, even though a blank puzzle, art and beauty went foremost into the inner

recesses of his appreciative mind.

There were three orderly rows of characters, each a supreme effort. Around each raised letter was faintly etched a small design of two spacial bodies in their respective orbits, presumably two planets revolving about a center object, the sun.

Doctor Sheffield gazed long and studiously at the thin lines. It was these etchings which had made the entire working out of the bas-relief an impossibility. He could decipher with difficulty the few characters on the end, but when he attempted to put two letters together to form some cohesive meaning he could get nothing. The etchings before and after each letter destroyed every method to bring about a unity of thought. If he could but stumble upon the true essence they intended to depict, then he might figure out something to it all. But upon an ancient carving a picture of two planets revolving was beyond him. He, nor any other scientist who had seen it from time to time, could find any key or formula which would explain this.

With careful fingers he returned the bas-relief to its swab of cotton and locked it in the drawer. His large shoulders shrugged as he set himself back in the chair and dropped his gaze once again onto the brilliant glare in the fire-place.

What did Anderson mean when he said that some outside person knew of this thing? That this same person held some answer to it all? He had seen to it that few people not within the pale of science were aware of its existence.

He heard a step behind him and turned to find his man-servant ushering in a young man. His face lit up.

"I'm glad you are here, John."

The assistant professor smiled

broadly. "I'm glad I am, too, Doctor. Have some good news for you!"

The older man was upright in his chair now, his eyes lighted with interest.

"So I understand. Sit down and tell me about it."

John Anderson took the seat proffered him by his superior, extending his feet toward the fire and drawing out his pipe.

"You will have a visitor here shortly," he declared between puffs. "I'm not going to tell you anything other than it was a Chinaman who called me up about an hour ago and got me to arrange for this meeting. Somehow, Doctor, I experienced a strange feeling on hearing his voice over the phone." He shook his head. "Almost as if he held the solution to it all!"

The older man rose from his chair, the light of the grate being reflected on his countenance and animating it. His eyes were aglow. He walked slowly about the room, into the shadows and out of them, his powerful shoulders shrugging every now and then.

He stopped suddenly. "Nothing is clear to me, John. There is a mystery here somewhere. The threads are trying to come together with some semblance of explanation but I understand them not. It's been a void from the first moment my eyes fell on it."

He stopped before the fire and gazed down into its depths. For a long moment his eyes stared unseeing into the heart of it, then a shudder crept over him.

"I must tell you, John, even though you may already feel it, I fear something vitally wrong, so deep-rooted that it rips at my inner self; yet I can't explain it. I am too old and too hardened a scientist to take stock in unexplained feelings, but I am succumbing this time, mostly because

everything looms right upon me, I suppose. I can speak to you, John, without being misunderstood. I hope this Chinese person of yours knows something, for I can't let this thing creep through my marrow like this. It is as if something is going to happen."

He let his glance fall on the younger man who was smoking in the chair. Their eyes met; but there was no ridicule or misinterpretation in the atmosphere.

## CHAPTER II

### TI YUN'S STORY

THEY might have wandered into irretrievably profound recesses of thought had not the manservant once more made his presence known. This time Sheffield cast off his cloak of revery with ill-concealed expectation and ordered him to bring the visitor immediately into the room.

There entered into the semi-shadowed library a small but wiry figure with a smooth crop of shining black hair and a pair of piercing eyes. He advanced with a nod to Anderson and Sheffield, introducing himself as Ti Yun. The young Chinaman was seated between his hosts.

Immediately, once the light of the blaze penetrated the shadows and settled upon the physiognomy of the yellow man offsetting his parchment-like skin, the eminent Doctor's eyes crept to the deep ever-moving orbs of the man before him and he felt that his assistant had depicted some true picture of him. Staring out at him from under those scant brows were sage eyes attempting to pierce his mind, trying to extract from him something, something . . .

So he felt, and it was with another

shudder—one of those which were becoming quite constant with him now—that he snapped the feeling of the unknown from him and addressed him.

"Ti Yun, you have aroused our curiosities. Let us be frank. What do you know about this bas-relief, this puzzling thing?"

The small man's eyes flashed, portraying every vestige of a living entity, but his pallid yellowish skin remained inanimate. Truly, thought the men watching him, if ever there was a soulful, conscious, absorbing essence which seemed to speak for itself, it was that pair of eyes.

The Chinaman laughed noiselessly. "I shall be frank, thanks to you. There will be no gain by being deceptive here. I know that you have the bas-relief in your possession. I know also, though you have not the least idea of this, that it holds the fate of the world in its very center. The flesh of the earth is reaching the point of dissolution; it will be the greatest catastrophe that ever befell it. I am not here to demand that ancient relic which you have. I am here to join every mind in one cause for what shall come. You, Doctor Sheffield, are a noted man of learning and thought. Pray that you shall be given strength and courage, to know what to do in this emergency!"

The tension that hung over the room was heavy. The scientist watched the commanding vision of the Chinaman before him, and though his statements seemed stretched and his words appeared dilated, the Doctor did not for a moment doubt his assertions. It was odd. Everything was descending upon him with too sudden a force to be ignored, scorned or disbelieved.

"Ti Yun," spoke Sheffield gravely,

"understand that I and Professor Anderson are eager to hear everything you have to say. Please do not fear that we may ridicule you. We are ready to stand at your side and assist you. Your honesty seems real and not on the surface, if I am a judge of character."

Ti Yun relaxed in the chair. "Ah, gentlemen, that is what I have been wanting to hear. I couldn't bear to come to you before this, for fear I would be misconstrued and hooted out of here. I am glad that I have your confidence. It will make things easier, easier for all of us."

Sheffield said, "Our confidence comes from the fact that the bas-relief has been an insurmountable thing in our lives, and the possibility that some one may work out the true meaning from it are not to be set aside."

THE fire flickered and sputtered as a log was slowly being consumed, but nobody paid any attention to it. Two scientists' eyes were upon one thing now, the face of the Chinaman, Ti Yun.

"Gentlemen," the yellow man started, "I don't want to see that bas-relief yet. Not until I have finished with what I am going to tell you. Then it can be brought out and we can have the answer to it all."

"You can readily see that I have forced my way to you through some ulterior motive. It is not a selfish one, that I can tell you, for it concerns not me alone but every living intelligent thing on this earth. You, Doctor, and you, Professor, cannot begin to realize the dreadfulness that lies over our heads at the present moment. I shake myself time and again hoping against hope that I have been in the throes of a mental dream, but



I know otherwise. I shall not hold you in suspense.

"I am a Chinaman. I was born in Mongolia, in a valley that is in the center of the great Gobi desert, which lies like a clutching threatening reptile, within the reach of the scattered yellow man ready to consume you once you enter its domain. Four unscalable walls stand around that valley like a quartet of rows of silent sentinels guarding those within its folds from the ravages and fierceness of those whirling eddying sandstorms, from the wide waterless wastes. Few people know of that valley, gentlemen; yet it is so fertile that we grow everything necessary for the personal consumption of the dwellers there, and the green pastures on which tread and browse our animals cannot be conceived of being but a bare distance from a stark aridity. Myself, I do not know where the water comes from. Many times I have attempted to discover the source of the trickling waters which course into our valley from the crevices of the vast walls, but to no avail.

"Once in a while our people gather together a small expedition and wander forth from their haven unto the distant lands and cities of other yellow men. It was during one of these journeys that they lost the gold bas-relief which your expedition found near the spot where the skull of the Peking Man was uncovered by the Roy Chapman Andrews expedition in December, 1929, the oldest skull of man ever found, reputed to be almost one million years of age. Let me tell you, incidentally, that it was the skull of one of our race.

"However, we searched the ground around there for years in the hope of finding that bas-relief. Our expedition had no right in taking that

precious thing with it, for the possibility of it being lost was always apparent. We hoped to find it before it became too late for it to be of any use. We were always dreading that it might be forever sealed in the bosom of the desert by the settling blanket of ever-present sand. If that were the case, we would have to warn the world of the impending calamity and let them find out for themselves, later, that we spoke the truth without evidence. We would not admit to ourselves that we were no more to see that bas-relief, upon which rested the security of the world.

"And so months ago a yellow man told me something of your expedition in Mongolia. Of course I had known of your being there, but what he told me quickened my pulse. It seems that one afternoon just before you were ceasing your work there, you, Doctor Sheffield, wandered among a small scattering of petrified stumps with this man at your heels and pounced upon something which lay under a small obstruction. He saw your eyes distend, as though you had found the richest pearl in all the world and wanted to conceal it, even from yourself. After that day, this fellow told me, you seldom came out of your tent, only to give commands to your subordinates who were doing the routine work preparatory to closing down the camp and starting for home. Once, he said, when he was passing your tent the wind swirled past and blew the flap open at the entrance. Inside, he saw you and Professor Anderson bending over a square thing that gleamed dully in the light. Your puzzled faces were so intent upon it, that you didn't notice him.

"When I heard that, I knew that it was the bas-relief you had before you, which had evaded the searching eyes

of my people for so long. Even the ground upon which your camp had been pitched had been dug up many times. Nothing ever could stop us. So upon this discovery I hastened immediately to this country. I had been educated here, knew it well. My eminent father had prepared for the deciphering of the bas-relief when it would be found and the dissemination of the danger to the world by the education of me here in several languages. That is why I am so proficient in your tongue and mannerisms.

"From the first I loved this country, its physical freedom and the opportunities for self-expression. I couldn't get enough study during my stay here. I wanted to saturate my mind with everything, my soul with every desire.

"But I was called home, needed. Gentlemen, when I came home everything was explained to me for the first time.

"My family had been rulers of that tribe of yellow men for countless centuries. That I knew. I was the only son, the direct heir. But I learned many things that, once I had begun to digest them, made my mind whirl in confusion, then in abject terror!"

### CHAPTER III

#### THE ANCIENT HORROR

TI YUN continued: "I'll tell you the story as my father told it to me. Thousands of years ago, long before man had begun to utilize his mind for a purpose other than self-sustenance, when the wide landscape of Asia was a fertile place and populated with the animals and mammals of which you now so diligently seek the bones and deposit them under the roofs of your museums and houses of learning, that valley was

an uninhabited place. There was no yellow man. In fact, no yellow man existed upon this earth.

"The yellow man was never a native of this earth! He is an immigrant! Don't look so incredulous! I am going to prove my statement in time. You ask how could he be an immigrant and still not come from this earth? Where could he have come from?

"Gentlemen, the yellow man is fundamentally built like the rest of the humans who dwell upon this mother earth, but he never came from this world. His original home is on our sister planet, Mars. That is where he comes from!

"Please do not doubt me. I told you at first that my words would seem highly distorted once you heard them. I even shelter the germ of dismay within me. But then, as I said before, I know conclusively the truth—that the yellow man, that my own ancestors, once roamed the land of that pin-point which sets so far away in the heavens but which is, as you will soon hear, so near—alarmingly near.

"The yellow man was not the highest developed form of mind on Mars; in fact, he was no more developed to that higher form which I shall explain to you, than the mind of a lower beast is to that of ours to-day.

"Countless ages ago, as our scientists now understand somewhat, the planet of Mars underwent a cataclysmic transition in its water supply. According to my father, its natural liquid resources became almost a nonentity, only a small portion of it being preserved at the poles, and it was, after a frantic and almost superhuman attempt, directed into the large canals over the entire land, which had been hastily built for the benefit of the inhabitants.

"But the supply was insufficient. The type of body that lived on and controlled the planet dwelled in water as well as on land. That body was in the form of an elongated eel, the average length being about eight to ten feet, and it was supported in the air by a score of thin but very wiry elastic legs which moved with rapid precision when it walked on the ground, and which folded up at the sides of its slimy body when it entered the water. These flying, walking, swimming eels were the highest type of civilization on Mars, higher than in mind than any form now present on this earth. Think of that and you will begin to dread the rest. For if they were so supreme in mind then, we cannot begin to comprehend their abilities now. It would be imaginative beyond words, even thoughts.

"**A**LSO, there dwelled at that time on Mars in conjunction with this super-minded eel, a race of people, the forebears of the present yellow men. At first, they were merely another form of life there, simple in mind, and following their own tendencies and inclinations, never interfered with in any way by that super race of eel-men. Their trails crossed daily without the slightest discomfort to either.

"But when that drastic drain on the water supply was felt by both races and they watched the inevitable change of their precious liquid into thin vapor, the eel-men were the first to spring into action. With a natural leaning to preservation, the yellow men joined in and in time were hard at work building up those canals which are evident over the face of the planet to-day. But by joining with these eel-men and manifesting their extraordinary laboring powers they

spelled their doom. The creatures naturally assumed an authoritative state over them and began to exploit their possibilities. They worked them to death, sitting aside and preserving their spineless bodies.

"But the time came when the eel-men could not get enough liquid for their personal consumption and wallowing, and their scientists started in to discover some new means to replenish it. They looked with greedy eyes toward the earth and saw the eventual haven where they could settle down to a permanent, comfortable life. They constructed a gravitational ship that was to take them to this earth. It was a simple matter for their developed minds to overcome the problem of interplanetary travel.

"The principle of their travel, however, depended mainly upon the existence on this earth of some super-radioactive substance, which would act as rudder and controlling power for their ship once they got into this atmosphere. That power, which they had in abundance on their own planet, they finally discovered with instruments. It lay in enough of a concentrated quantity on one spot upon this globe; thus they were assured of a safe landing.

"But just before they embarked on their exploring journey, one of their scientists made the discovery that halted them temporarily. It was the finding that will be the eventual ruin and disintegration of the human race. It was the discovery that the yellow men possessed something which was of more value to them than any other liquid that they had ever come in contact with. It was the blood of the yellow men, the warm life-fluid that coursed through their veins!

"It would have been better had that sudden orgy of blood-sucking begun

and ended right there, with the complete annihilation of the human race. Had the appetites of the terrible creatures been accorded full sway over their senses of mind and had they destroyed the human race once and for all time, it would have been a blessing to those now living, for the race would have been wiped off the slate long ago. But that didn't happen. The higher minds of the eel-men ordered a stop to the destruction of all their supply of blood to be taken from the yellows.

"This delayed their trip to the earth for a while. The yellow men were rounded up and put into barred and protected quarters to breed. And each eel-man was allowed only so many yellow men per Martian year for his own personal consumption, in *pro rata* with the supply.

"According to my father, the bodies of the yellow men were useless to them after they had been used for the life-fluid. They were reduced to fertilizer and spread over the fields.

"Imagine—I read the horror even now upon your faces—what a period my ancestors were going through. They may have been greatly inferior to that highly civilized mind of the eel-man but they harbored feelings and sensations that were human, which you and I readily understand, but which those godless beings never dreamed of. To be used on the table of a beast, for its personal and physical enjoyment, was a terrifying and heart-rending thing. But they could do nothing about it.

"**T**HE Martian eel-men finally came to the period when they alighted on this earth. They landed in the valley in Mongolia, where I was born, and which, as I have explained, is the only spot where they

could have landed, because it is immensely rich in radium, a radioactive mineral. They dropped their ships perfectly.

"It was the age when massive mammals and other gigantic land creatures roamed about, and the Martians explored the earth from end to end and gloried in its richness. They were able to preserve their puny bodies from the vast destructive animals that existed by their simple use of mental telepathy which had such a marked effect on these creatures. Every animal turned meekly aside once it came into contact with that unseen power. For the first time, the yellow men knew what a power lay in those slimy heads, for strangely enough that telepathic urge had never been effective on them.

"They slithered over the ground and glided in the water with safety. The space-machine had not been utilized in exploring the earth; it had been useless because it hadn't ample projectiveness and controlling power from a concentrated body of mineral. They could come down, rise, move along only so far as the mineral body existed, but once near the outlying reaches of the radium their speed diminished and they finally had to stop for lack of control and returned.

"The result of that trip to the earth was that the eel-men constructed many more ships for the purpose of bringing their entire supply of yellow men to the earth. But something again delayed their task.

"The eel-men who had made the journey to the earth suddenly became the victims of a body-racking disease which they couldn't cure. It paralyzed their entire bodies in the end, leaving but an active mind in a useless hulk. They realized then that the earth con-

tained some sort of natural foe for them, a microbe, and they stopped to consider the best means of combatting it.

"They labored hard trying to discover what germ it was but nothing they did brought relief. Finally, the super-minds of the eel-men decided upon the migration of the yellow men in order that they might breed in numbers and become useful to them after they had solved the problem of the paralyzing infection. Strangely enough, the yellow men had not been affected by any destroying germ such as had harmed the invaders. So more eel-men sacrificed themselves to the earth's germ, in order that they might place upon their planet load upon load of the yellow men.

"And thus it was that, on the last load, they left that bas-relief. On it was carved the different times when they would descend again, when Mars would be in proximity to the earth, and for many, many years they did come on those dates recorded, but they never stopped longer than to take back a large supply of their delectable humanity. Suddenly they stopped coming for a reason I don't know. When, after a long period of dates on the bas-relief had passed by and they showed up no more, a deep breath of prayer was offered up, and they soon became a memory only, to the minds of the existing generations, though in our hearts there was etched indelibly an unknown fear.

"Gentlemen! the day is near when that fear will flame anew! Those dreadful depictions which linger deep, deep in the recesses of the brain lobes, those fantastic thoughts which are in-explainable shall soon crash into plain view. A hideous sword of Damocles lies over all of us!

"The bas-relief was kept always

under lock and key. The house of Yun trusted nobody with its terrible secret. My ancestors long before had etched in the beautiful characters of their written language the meaning of that gold relic left them by the eel-men. It was done so that the successive generations might interpret for themselves the positions of the different solar bodies. It is probably this which makes it indecipherable to you; you can't understand its significance. But there is a key-note upon that bas-relief that can be explained only by one of the house of Yun. We know, however, that the inhabitants of Mars must descend only on the time of greatest proximity of their globe with ours. It creates a greater potency for their ships. But the question is, when will they come? That I can tell only by looking at that gold slab.

"So you ask how do I know that they will come? I shall tell you. One night years ago, when I was but a small child, I remember my father running into his study in an extremely disturbed state. At that time I didn't comprehend the full importance of it, when he said to himself, 'They have come! They have come!' He took me by the arm and led me to his observatory window. There, in the heavens, a black, gigantic, egg-shaped body floated. He watched it with popping eyes, I with a curiously innocent gaze. For some reason it didn't stop here, but disappeared. I recall vividly my parent throwing himself upon his face and becoming hysterical with an outburst of prayer. I had never seen him like this; only the stern haughty ruler he had been.

"He sent me to school in America. When I became mature he told me of his intentions. The time was very near, he explained, when the people of the earth were to mass themselves

against a foe who would undoubtedly conquer them. The eel-men would take what they wanted, he declared solemnly. We would never be able to combat such a superior intelligence. It was written in the books.

"He showed me the transcriptions of his forefathers, how they had written of the terrible consequence of being a man. They were all of the belief that the future of the human was destined to be a sacrifice upon the altar of a super-being. My eminent father's intention was for me to disseminate the knowledge to the world. He sent me in search for that bas-relief, which had been lost long before, for on it was the date of doom! Then came that lucky find of yours!

"My father bade me go immediately to you. I came with a trembling heart lest my mission be ridiculed in its fantasy, lest it would be heralded as a far-fetched tale, but you have accorded me genuine attention and I am content. As God has made us, I have spoken the truth! That is all."

## CHAPTER IV

### THE WARNING

THE head scientist lay back in his chair, his hands folded on his breast, and stared at the yellow countenance of Ti Yun. The room had long since become cold, the fire being in the hearth a mess of charred embers. Professor Anderson sat silent, speechless.

The Chinaman looked into the faces before him. "May I see the gold bas-relief?"

Doctor Sheffield stirred into action. He leaned down and unlocked the drawer of the table at his elbow, and drew forth from it the swabbed, precious article.

Ti Yun's fingers reached eagerly for it. His eyes studied the old wording and, as though he had suddenly become aged on the instant, his head dropped on his chest.

He said, "You know what it says here?"

They shook their heads.

Ti Yun continued, "Several proximities have occurred since that space ship was here last. But this bas-relief has not any of those dates upon it. The next proximity written thereon is—three months from now!"

The statement galvanized them into action. Sheffield sprang from his chair and extended his hand for the bas-relief. "Explain it to me," he demanded.

With both scientists about him, Ti Yun interpreted the meaning of the inscription on the relic and with shaking fingers he pointed out the spot where the two planets would swerve near each other. Both watched him with absorbed, lined faces.

"Why did you wait this long?" the doctor cried. His face betook a hard look. "Never mind," he snapped. "It's no use grieving over that now. We must make this known immediately, get the heads together and fight it! It is our only salvation!"

Anderson observed his superior striding the floor like a madman, but knew all the while, however, that a turmoil of mental effort was going to be beneficial. He knew that Sheffield had believed that tale as he himself had believed it; felt, too, that there was no essence of untruth whatsoever in the statements of Ti Yun. In the sea of their orthodox scientific minds, ordinarily, there would have been no surface for that fantastic tale to have anchored to as barnacles do to wood under water, but something had rung true and clear here, so genuine



that their hearts were being beset by a fear never known to them.

Sheffield snapped on the lights which lit the room. Gone were the shadows which had accentuated the starkness of the tale, dissolved were the eerie depictions which had played over the dark walls. He took from a rack a large volume, opened it, and studied it intently.

After a moment, "You are right, Ti Yun," he said hollowly. "But a bare three months remain, until Mars comes within 33,000,000 miles of us. Three months for us to do what must be done!" He dropped the book and leaned heavily on the table with one hand, the other stroking his cheek feebly. "Heavens! We must do something! Humanity must survive those ghastly creatures!"

**P**ROFESSOR ANDERSON got out of his chair, his fine athletic form becoming taut. "Doctor," he said slowly, "we must not keep this solely in our hands. We must call in the greatest minds of the world to aid in attacking this evil. We must all be one now, white, yellow and black. Nations and people must melt into one solidified unit for safety!"

The Chinaman caressed the gold bas-relief gently, the thing which his many ancestors before him had held in their hands, and exclaimed, "The world may not accept the story and the truth. I am afraid we will be censured as sensation-seeking persons."

"You may be right," Sheffield asserted. "But they must be told. We cannot withhold anything, even though we may be subjected to the utmost ridicule. My standing, however, in the world of science will not be ignored. I shall bring over to my way of thinking the higher heads. They will see what peril lies over us. There

is no time to be lost. We must start immediately."

And so it was done—the alarming of the entire world. Newspapers carried the stories of Ti Yun and the stern command of Sheffield, that it was the greatest catastrophe that could befall the earth, and within twenty-four hours the whole civilized world was staring at their possible eradication.

The reaction was peculiar and somewhat running with the grain of human nature. It was partly the way the famous scientist had stated. The every-day mass read and wondered, a momentary fear possessing them; then they paused to burst out into the expression that a good yarn was being put over on them. They read the narrative of Ti Yun as they would consume mystery tales—avidly, and presently uninterestedly.

But to the scientific world it was a different thing. They demanded an ample and decisive proof from the famed and honored Sheffield, evidence of this fantastic presumption, and they received it. Sheffield presented it to them with the bas-relief and the salient features that went with it.

Even with science on the platform of belief, however, the masses would not acquiesce to the fact that they were going to be used as food for a pack of eels, which were supposed to derive from Mars, and which would possess more mind than the worldly human. It was too grotesque a tale to be taken without a grain of salt, and it was pooh-poohed. Governments continued their oiled paths, paying little or no attention to it. They were not interested in petty troubles. There was a people to be governed, money to be earned. And as the nations thought and did, so followed their many subjects and citizens. Science

could evolve its own fanciful stories and seek out its own remedies.

It was a hard struggle from the beginning, the scientists noticed in alarm. They couldn't blame the people for their unbelief, it was true, for it was beyond the credibility of the ordinary run of intellects.

The keen minds, however, got together for the purpose of laying out a suitable defense and thus the days went by. Arguments were given *pro* and *con* without any end being attained.

**A**ND then one day, several weeks later, the earth awoke to its first startling realization. Just as before they had scoffed, so now they became imbued with frantic terror.

In simultaneous reports from Shanghai and Tokio came the announcement that some mysterious death was taking the lives of hundreds of people. In the market square of Tokio alone countless bodies had been piling up one after another from unseen causes. But what terrified the people was that, though every one of those bodies had shriveled up, not one drop of blood was left in the veins! Shanghai had the same story to tell, only in more magnifying numbers. People were falling in screaming agony, and what was left of them presented the same lack of the warm fluid that sustains life!

People were now clamoring for anything to offset that thing which was assailing them. In Chicago, where the scientists were convened, they flailed them for immediate action. Where before these men of learning had been handicapped by the indifference of their fellow-men they were now hounded for instant relief.

Day and night they remained awake

discussing violently the possible means of doing something. And day after day the wires grew hot with the revelation that Asia was becoming mowed down, and from an unknown cause.

Then, to the horror of everyone, San Francisco crashed one afternoon into the news with ghastly reports, followed by other cities on the coast. It was spreading into Europe, too.

The world rose up. Thousands had literally died from nothing. It was a profound puzzle. Surely it couldn't have been an unknown germ descending suddenly upon an unwary populace. A body was hurried with utmost haste to the assemblage in Chicago and examined. It proved devoid entirely of blood, but what brought everybody to their feet was the fact that the body had been punctured over the heart, two red holes being evident. And when word came in from the other centers that the other corpses had the same gashes over their hearts, then things began to happen.

From the valley in Mongolia came the wire from Xu Yun, the ruler of that isolated group, that a dozen or more ships had landed and many eelmen had scrambled out and vanished right under their very eyes. Ti Yun read the telegram to the scientists and the worn and tiring men simply tore their hair. They couldn't fight unseen foes!

While the mob below howled and screamed, Doctor Sheffield rose to his feet and spoke to the scientists.

"It has come! The Martian creatures have been with us now, creating havoc, and all in an invisible state. We have before us an example of the magnitude of their resources. They have shown what they are capable of.

"We are at a terrific disadvantage.

Without knowing where our opponent is, we cannot defend ourselves. Our position is bad. And furthermore, Mars is not in its nearest position to the earth. They have come before the scheduled time. I can't understand that."

Ti Yun rose to his feet. "It is written that they generally come in advance only to leave quickly. Probably it is so that they can size up the situation here."

It was an important disclosure, unverified as it was, and it precipitated them all into a madly eager attempt to strike a solution to bring safety. Voices cracked under the strain of tensity. Hours ground away despairingly and wearily. Ti Yun had to tell his story again and again, while the rest tried to force from it some method of saving themselves. He was hoarse when at midnight his eyes suddenly dilated and he let out a screech of delight. It roused every one in the chamber and they gaped at him.

"Gentlemen," he bubbled almost incoherent with joy, "I have it! The key to everything! We shall be able to fight this enemy to a finish, to save mankind!"

## CHAPTER V

### THE WORLD PREPARES

**O**PEN-MOUTHEDLY they listened as Ti Yun went on:

"I am surprised that we have not thought of it before. It is going to be the most gigantic task but now it is our only way out. Remember when I told you that the eel-men could come to the earth only through the medium of that body of radium which engulfs the valley? There is our solution. Without that radioactive mineral massed there to propel their ships, they cannot land on this earth!"

On some faces were consternation and befogginess at this; on others perplexity. Sheffield asked, getting some faint idea, "You mean that we should take the mineral from there?"

The Chinaman nodded. "Yes! That is our only hope. We should have thought of that in the first place and would have had ample time to have removed it. We must dig down those mighty walls that hem in the valley and distribute the earth all over the world. By doing that we shall be safe!"

A Frenchman interrupted, "What good will it do us? They are here now. Even if we take away the metal there remain upon the earth these invisible eel-men. We are doomed."

"I think not," returned Ti Yun. "This trip of the Martians is yet prior, two months in advance. The exodus from Mars will not begin in volume until that time, I think. For that length of time we shall be safe in so far as having to deal with thousands of the eel-men. These who are here usually go back and report on the condition of everything on our earth. If they follow out their past course, they will soon leave. But we must begin now to assemble every man available on the Gobi and break down those walls. We must!"

They would have pinned their hopes on anything plausible and this made the heart beat quicker. They immediately decided on that action. Instantly every government spun into movement and ships were commandeered to take the millions of eager men thenceward, for the purpose of tearing down those immense walls, behind which was deposited such vast stores of radium.

Ti Yun's father was placed in charge of the work. He had communi-

cated to his son, the day before, that the Martian ships had left, but not before thousands more of men, women and children had succumbed. The fact that they had been forerunners was now a tremendous relief to all; it made everybody pitch in with abandon.

The world gave its everything. From all over Europe started a trek toward China of the millions of men who couldn't secure passages on some of the usual means of travel. They wanted to be there, to assist in anything. Factories worked day and night, supplying an almost impossible amount of shovels and picks and the like for the use of the men.

Obstacles meant nothing to them. The brow-beating, strength-sapping Gobi sought to manifest itself, but millions of men were not to be denied. Lines of rails were laid on the seething desert, clear to the valley hemmed in by the great natural walls. It took almost no time, so fast did the railway unfold itself. And immediately the slow disintegration began.

**E**XAMINATION revealed that the radium content in the rock was of so great a quantity that it would never again be the rare mineral it was. No effort was made, however, to isolate it from the rock and earth; there was no time for that now. Work! Faster and faster! Steadily were the shifts of men removing the key which would spell their downfall if left in its present position. As fast as the men removed the rock it was transferred to large cars which were endlessly moving back and forth on the rails. The rock was dumped on ocean liners, ships of every conceivable description, and the distribution of it over the different lands of the earth was in charge of a corps of

men. To no place was given an amount large enough to produce an inlet for those Martian ships.

Sheffield and Anderson labored tirelessly, caring not so long as their eyes watched their efforts slowly but surely wearing down the resistance of the mighty walls. One wall was gone in ten days, another was slowly crumbling up. According to estimates, it would take less than five weeks for everything to be finished. And then the earth would be free!

The executive council believed in arraying the territory as if in preparation for an attack. They did not dare take any chances and get caught napping. Big guns were set ready to be focused on any given point at the word. The district for miles stretching around was one of seething humanity, ever-moving, ever-working. There was not the slightest pause. Even the scientific body had changed its residence and had moved its abode to the scene of action, establishing the laboratories at hand; they were in the thick of devising some devitalizing, counteracting influence which would block the bombardments of the plentiful radium emanation, but to no avail. At first had been suggested a thick coating of lead over the hills, but that had been deemed inadvisable owing to the length of time which it would necessitate.

Sheffield and Anderson had been accorded the honor by Xu Yun of staying in the age-old abode of the royal family, there in the fertile valley which was now shedding its outward cloak and beginning to look at the threatening desert for the first time.

It was here that the famous scientist viewed the massive room wherein were stored the scripts which had survived thousands of years. The

walls were stacked with bound books of all sizes, reaching up to the ceiling—an invaluable lore-covered interior.

Doctor Sheffield removed a volume from the rack and tenderly examined it. His breath almost ceased. Staring up at him were pictures the like of which he had never seen before, and characters which seemed similar to the ancient Chinese on the bas-relief. At some other time the discovery of the ancient manuscripts would have been a great finding, but now only a temporary outburst issued from his lips. There were things of primary importance on his mind. But he couldn't help but delve into the mustiness of the aged papyrus with its wonderfully preserved markings. From book to book he moved with a wonder and scientific joy in his eyes; here lay volumes beyond value; the fact that they could have existed through millenniums was astounding. It is known that papyrus is of astonishing durability, not perishable in a few years like common paper.

There was no reading these at a few sittings, or even in years, and he paused after going through several.

"Xu Yun," he inquired, "which is the most valuable here?"

The Chinese ruler smiled. "I doubt whether you will understand it, it is so old. Even I comprehend it not to the fullest. But there are drawings—"

From a locked drawer he withdrew a wrapped article. Unwinding it, a cord-tied mass of paper-like material was evident.

Sheffield gazed at the strange tint which was woven into the glazed fibre of the paper and as his fingers felt it, he could almost discern an invisible strength beneath them. The oddish,

green lines which crept through every sheet, were like living threads keeping alive an inanimate object.

"How could these drawings be so life-like, so beautiful?" he marveled to himself. Then suddenly he awoke with a start. An elongated creature, its body reposing in the air upon many stilt-like legs glared loathsomely at him. Its head crept out of its slimy body, like a grotesque feature coming out of a cave-like formation.

"An eel-man," rasped Anderson.

"Exactly," confirmed Xu Yun. "The picture is perfect." He pointed to the long tentacles that reached down from the lower jowls to flop against the ground. "These are the suckers which pierce the body and extract the blood!"

They stared long at the picture of the creature. In their minds roamed the thoughts of such a blood-curdling animal being a superior mind and wandering over the face of the earth overriding the puny attempts of the earth dweller in his effort to remain alive. The calm and gentle peace of the earth came to them, the beautiful evenings which permeated the joyful heart, the loves for the brother flesh—all the finer and aesthetic states of existence gone to a destructive waste. Cities which had spread with the countless generations of inhabitants crumbling into a dust that would resound only to the patter of scaly, filthy paws. Desiccation!

"Good Heavens!" was all they could muster into expression.

The newspapers of the world published that terrifying picture. It was enough to speak for itself, and it did, hideously! Those suckers almost leaped at them from the paper and sank their cold, clammy tenacity into their yielding skin!

## CHAPTER VI

## THE MARTIAN DESCENT

FROM all parts of the world sped messages that raged with beseechings for haste. The workers in Mongolia were exhorted to strive to their capacity, and the continuous stream of incoming men grew in volume until every foot of ground was packed. It taxed the ingenuity of the directors to feed that mass, but the world took from its own table so that those working might not want. Their only fear was that the work might be in vain, in spite of the announcement that it would not take more than five weeks to clear the land of those towering cliffs.

Mars was almost at its nearest approach to the earth. The eel-men, had they desired, could have come at any time now, in any number. But just as Ti Yun had spoken, they held their reins, yet. And so the days went by and the terrestrials held their breaths and subdued those terrifying thoughts which lay within.

The desert was no more; it was a human melting pot redundant with humanity. Not one pause for silence. Every load that was carted away meant less strength for those Martians. Every bit of earth that was dug loose meant that much increased closeness to freedom.

Then came the day when the wires heralded the disastrous fact that a space flier had landed. It had happened in the middle of the night and was witnessed by thousands of men, who immediately set up a tremendous uproar.

The Martian ship came to earth in the middle of the valley. Sheffield and Anderson had at that moment been in the sky-room of their host, Xu Yun, and had been one of the first to sight

it. With terrified eyes they watched it come hurtling through the heavens as if it were some astral body afire.

"They're here." Shrieks rose from everywhere, when it crashed into the valley with a resounding noise.

Instantly Xu Yun's face burst into a straw-grasping look. "See!" he cried. "They can't control their ship! They have not enough radium power from the surface!"

And it appeared as though this statement might be the truth. Something had been the matter with the landing of the Martian vehicle! It had not come down in ordinary fashion, but had been propelled like some drunken meteoric body, which caught itself just in time, and had broken its fall at the last moment. And that glistering light had been the metal of the ship on fire!

THEY were affixed, as were the other millions who were now staring at it. The ship rested in a half-imbedded hollow which it had scooped up in its mad dive. It had no apparent opening through which anyone might issue forth. For quite a while they watched it lethargically, but it remained motionless and silent, as if life had perished within it on the perilous journey through the earth's unyielding atmosphere. During that time no man went near it. Perhaps it was because they were so terrified that their presence of mind was all gone. They simply stared and gawked.

Sheffield and Anderson were almost convinced that enough radium had been transported from the vicinity. The suspense was broken by an Englishman who came bursting in. He was one of the directors of the entire work.



"What'll we do?" he asked quickly in a strained voice.

Sheffield raised his hand. "Don't do a thing until I give the word. Train several guns on it but don't fire until I signal. I want to see what will happen with that ship. Perhaps those Martian creatures have perished in their swift descent."

They watched it for longer moments. "Let's go over and look at it," proffered Professor Anderson. "We might be able to study it."

They strode over to the ship, while around them countless faces were staring at them and at that weapon of destruction. Even in the night these men looked frightened and pale.

A searchlight suddenly broke through and fell on it outlining it in every detail. It was about twenty feet in width and thrice as high. Tapping the outside hull, they could feel no hollow sounds; it seemed as if it were some object composed entirely of solid metal.

Anderson turned to the Chinaman at his side.

"Xu Yun," he asked, "perhaps you know how this thing is entered?"

"According to a script," the ruler nodded, "these open from the top, a narrow strip unfolding down the middle, which is a ladder."

They examined it more closely. This time there were quite a number of men around them, who were interested in the findings of the scientists. All were silent, patiently waiting.

"I wonder how many Martians can get in this," one scientist ventured.

"About a score of eel-men," replied Xu Yun. "This one of their small ones. They have massive ones for the transport of hundreds."

"Bring the men with the torches,"

ordered Sheffield. "Everybody stand back!"

The electric arc torches were brought forth and applied. Try as they did, however, they could not dent the metal at all. It remained immune. A ladder was hauled up and placed against the side. The scientist ascended it slowly, carefully.

Every eye watched him scale it anxiously. Nobody dared to wonder at the outcome; they only stared.

JUST when Doctor Sheffield had reached the top, a matter of about fifty feet or more from the ground, a sudden rumbling became apparent from within and immediately everyone stiffened. Sheffield paused, his fingers entwined around the rung of the immense ladder, and before him he saw the top slowly revolve as if on an axis, and then move away from the center as though it were an opening.

Like a plummet, he dropped to the bars below him and was soon on the ground below. With a silent signal to disperse, he ran for the house, Anderson and the Yuns behind him. Men scattered in all directions. The English director sped past him.

"Fire, once the men are free of that ship," the scientist commanded. "Don't wait. Get rid of it immediately!"

Everybody disappeared as though by magic. Sheffield and Anderson were once more in the sky-room with the Yuns, staring at yonder ship of doom.

The top slowly turned again and again, like a top spinning in slow motion, and then a long strip of metal unfurled from the very peak of it to the bottom, and everything became quiet once again. The searchlight was still focused upon it, and it was plain-

ly to be seen. A row of steps crept the entire length of it, but no life was visible yet.

"Why," stormed the Doctor, "don't they fire?"

Their nerves were worn to a frazzle waiting for the shell to come whizzing over their heads to strike that ship. No more did they want to study it and its contents; freedom from its frightful meaning was what was craved.

A movement was seen on the steps. Into view came a descending creature about ten feet in length with limp, impeding tentacles that seemed to get in its way, as it labored for breath. It writhed as though in pain. The glaring white light of the beam made monstrous a savage head swaying from side to side.

"An eel-man!" whispered Ti Yun shiveringly. And as he spoke there came down the steps four more of the creatures.

The men were frantic. "Where are those confounded men at the guns? Why don't they fire?" But still no gun shattered the stillness of the night. Everything was silent. The painful, struggling movement of the eel-men was noiseless.

"The earth's pull is too heavy for their Martian bodies," Xu Yun pointed out. "They're moving around so that they can get used to it."

And it was so. They slithered along the ground on their many feet, their bodies falling on their bellies time and again in an effort to remain upright. A marked improvement appeared, however, after about ten minutes. They were able to walk on the ground and not struggle. During that time a half-dozen more of the creatures had emerged.

One, who seemed in better shape than any of the rest, gazed around the

land with large bulbous eyes, blinking in the merciless luminosity of the searchlight. His eyes fell on the one wall of the mountain which remained and he snapped his head surprisedly at the excavated sides. He whirled on the others of his tribe and something went between them. To those who watched in the dark it looked as though he were informing them of the reason for the strange action of their interplanetary ship. Once one of them broke into a throaty, raucous voice. Sheffield ran his hand through his hair with a wild look. Where was that shell?

Eleven of the eel-men were now picking their ways over the green sod of the valley, gradually moving away from their ship.

AT that moment came the long-awaited crash of the distant gun and the whine of the shell as it split the air overhead. The explosion was tremendous, being so near the men, not ten feet away from the space ship. It tore a large hole in the side of the Martian means of travel. Sheffield couldn't help but wonder at that time why the electric arc hadn't been able to dent the metal and yet the shell tore it apart. Perhaps, he thought, it was because there had been an opening which had permitted the outer blow to crash inward without resistance.

Another and another shot fell, and after the earth-trembling noise and dust had subsided there was indescribable wreckage all around. Of the eel-men all sight was lost.

The gun was silenced and the men went forth to explore the débris. An exhaustive survey revealed torn and twisted parts of the eerie and inhuman creatures, but nothing was left of the ship that would aid their work

by the examining of it. It seemed very strange that the eel-men had all been blown to smithereens; they had been some distance from the ship which had received the brunt of the exploding shells.

The directors convened immediately and were unanimous in the view that the remaining hill must be downed, even if men had to swarm over it like flies and stand on each other's head to get at that earth with its ore.

Doctor Sheffield stated, "What we saw to-night, if magnified by hundreds of such machines, will mean quick finish for all of us. Our single consolation lies in the fact that the power of the radium is almost nil. We can remove that hill in a week. But that will be too late. It must be gotten rid of in two days or less. The Martians will begin now to come in vast numbers. Every load taken away from here means that their ships will act as meteors without control. Let that be our incentive. This predatory enemy of mankind must perish!"

The muscle-racking efforts were redoubled. Every man, his arms and mind already failing under the strain, was instilled with a new strength: Fear. Yet infused in them was the spirit of victory, for had they not seen with their own eyes that they had taken the toll of Martian property and life?

Twelve hours elapsed from the time of the Martian demise. The hill was disappearing from view as though vast teeth were biting off chunks of it. Then came the terrible announcement to the world that almost a thousand workers on the remaining natural tower had suddenly succumbed in fearful agony, and that all of their blood had been drained from their veins!

## CHAPTER VII

### MAN VS. MARTIAN

IT was very obvious now! The shells had not destroyed all of those creatures! They had become invisible and had escaped danger to themselves so that they could coordinate their bodies with the greater gravity of the earth, and then they attacked the laborers on the last hill, so that there might yet remain enough strength for the direction of their fellow creatures' ships.

Once again the outlook of the world was dark, a gaping hole where their hearts had been. All their hopes, suffering and undertakings were to be in vain, then? Why should they go through all this miserable discomfort to themselves if it would only be futile and they were to die ignominiously on the altar of a brutal, fiendish blood-sucker from another world? Should they really even attempt succor for themselves, when it was being tossed in their faces that nothing could save their skins? Why persist in fighting against the inevitable? The invisible?

No one amongst the workers knew whose turn would be next to feed his life blood to the Martians. Yet, insanely frantic, they gave not one step but kept their blood-shot eyes on the incessantly descending picks and shovels. For several hours after the massacre they kept steadily ahead, laboring against time. During that time no one was touched.

This was very strange to all. "If those eel-men want to exterminate all of us to save the radioactive power, they would not have stopped so suddenly," reasoned Sheffield.

"You forget," advised Xu Yun, "that they absorb the blood in their own bodies. They are so greedy that

they would not think of extracting it from a man and squirting it away. And they can hold only so much."

This statement was evidenced several hours later when an immense swollen thing on crawling legs was sighted struggling away over the desert beyond the farthest outpost.

The scientists were immediately transported there. Crowds of men followed. It must have been an abnormal being, for though ten or twelve feet in length, it was fully fifteen feet high, far higher than any of those that had come out of the Martian ship.

Ti Yun exclaimed, "He's full of blood! Swollen!"

They hastened nearer. The eel-man had long since become aware of them but it seemed to do nothing to defend itself. It just moved along stupefiedly.

The two long suckers which were dangling from around its neck were distended and raw, as it could be seen. The Martian made a movement—the tentacles flew out with a snap—and men fell back in legions. But the creature simply turned and stared listlessly at the scurrying men. This gesture halted the fleeing workers, and they pondered its apparent harmlessness, then returned slowly.

"It won't harm us to get near him and study him," spoke up Anderson. "Must be numb, that fellow!"

ONCE more they crowded around the sluggish tracks of the Martian. One crazed man pulled a gun and levelled it at the thing. Sheffield roared not to shoot, even as some one tore the weapon from him.

This time the eel-man was angered, and it whirled and swung its suckers. It caught the nearest man in the

stomach and sent him flying straight into those behind him. Again there was a rush for the background.

"Let us get in front of him," suggested Sheffield. "We might be able to see what happens from that angle better."

The two scientists and several co-followers made their way around the creature. Several men raised their rifles ready to fire at the least provocation toward Sheffield and Anderson.

The Martians stopped its dull floundering at the sight of them and glared malevolently at the men. Sheffield and Anderson felt a slight shock suffusing their bodies as the large globules of eyes focused on them, but nothing harmed them. Sheffield stuck out his hand and made slowly toward the beast.

Instantly the creature halted, dropping its body to the ground and waved its head with its slobbering jaws from side to side. From its rear it slowly started to disappear, become invisible. The blankness moved toward its head, but right in the middle of its swelled slimy body it stopped. Lying on its belly was half a Martian! The transparency went no farther, even though the eel-man waved its head angrily from side to side—and then its entire body flashed again into view once more. Viciously it spat, then the suckers flailed the ground balefully. Again it attempted to become wholly transparent, but only the rear half succeeded.

"The instant the creature becomes invisible, shoot!" ordered Sheffield.

SOMETHING was the matter with this Martian, they saw. It couldn't muster to its command that essence of invisibility. It raised of a sudden its inflated awesome body and

lashed out spasmodically with its tentacles and fastened them upon two men standing nearby.

Instantly the guns roared. The thing dropped, and the bloated body started to slowly disgorge its accumulation of blood, which poured out in a putrefying horrible mess. The stench grew so unbearable that it was all Sheffield and Anderson could do to hack those vicious suckers from the victims and drag them out of the range of the fumes without being overcome themselves.

The injured men were taken away to be treated, and Sheffield offered up the explanation:

"There is the reason those creatures couldn't become invisible and continue with their destruction. They have attacked in few numbers but consumed so much blood that it has made them sluggish. It is apparent that the human blood's composition will not become coherent with invisibility like the rest of their bodies. And transparency is their chief weapon against us."

This one encounter brought joyous tears to the face of the anxious world, for it proved that satiation of the earth-man's blood would be their own undoing. Men, women and children shrieked with delight.

Orders were given to anyone seeing any visible Martian, to shoot to kill instantly. Man could expect them to be revealed now owing to their tremendous store of blood which dilated their bodies so grotesquely. And within several hours several more of the lethargic creatures had been killed, as they were struggling with their loads of blood over *terra firma*. The news of it caused the workers to scream with joviality and serenity for the first time in many weeks, even as they put forth their last ounce of

energy to remove the remaining rock and earth.

And then another one of the spaceships landed. The men gazed at it transfixedly as they saw it come shooting down into the valley and force a pit in the ground half as big as itself, but their fears left almost as quickly when the dust had settled. Its metallic hulk was a glistening red and it had been beyond control. They swarmed about it but drew back suddenly in alarm.

The top was revolving with manifest speed, as though those inside were crazed with the desire of being out of its burning interior! The strip which concealed the steps was unfolding with rapidity. Men scattered like rodents, and the cry went up, "Fire! Fire!"

Ti Yun was the last one to leave the vicinity of the ship, but just as he departed an eel-man came tumbling down and caught him around the neck with one of his undulating suckers, jabbing the other meanwhile into his heart. A few had witnessed this and turned to come back to his assistance and rescue.

But a shell interrupted their efforts at that moment and fell upon the scene amid a terrific disruption, and a confused spray of débris fell among them. Another shell fell nearby, completely demolishing the home of the Yuns.

Xu Yun, watching, raised his yellow scrimpy arms to the heavens above and clenched them. His face was contorted into an unimaginable ache, then metamorphosed into a resignedness.

Twenty-four hours later the last load of earth had been removed from the vicinity, and the world of living men breathed a genuine prayer of thanks. Within a few hours scores of

meteor-like conflagrations were visible in the heavens above and all knew that they were the ships of the Martians, terraqueous eel-men disintegrating into uncontrollable cinders and ashes. All through the hours those below watched the brilliant spectacle of fireworks aloft. One, a massive thing hundreds of feet long, came as far as the ground, describing a gigantic parabola as it weaved crazily through the earth's atmosphere and crashed, a flaming mass which fell into a crowd of men, killing many of them.

Each hour with its record of streaming meteors was written in the newspapers, and each word seemed almost to jump from its bed of print, in gratitude that the human race had won its greatest battle, that an unearthly creature had been repelled.

But everything was not yet over. There were those monsters which were still upon the earth, still getting over their huge consumption of blood. They were a problem to deal with. Everybody turned out into the desert and hills armed with guns of all shapes and makes, weapons of every sort. Five were found trying to hide themselves and were disposed of immediately, their deflating bodies creating an odor that drove all away. But the good work had been finished. The world was safe.

## CHAPTER VIII

### THE SHRINE

**T**HE MONGOLIAN country around that valley, amid the unsurpassed rejoicing of all peoples, was transformed as a final gesture into a beautiful land, commemorating the many who had per-

ished so that their fellow-men might be saved from the ravages of a Martian monstrosity.

One evening, in the newly constructed abode which Xu Yun called his home, the two scientists, Sheffield and Anderson, sat at a table, with the bas-relief of gold lying before them. The Chinese ruler reposed on a chair and gazed at the relic reminiscently.

"This, gentlemen," he uttered softly, "has saved humanity for posterity. Without this bas-relief there would have been a void on this planet now. Instead of love and peace going hand in hand upon the face of this globe, there would be only a hell in which would gloat a slimy creature. Many souls have gone from here to pave a smooth path for generations to be born unfettered. Mine among others!" His head dropped.

Doctor Sheffield lay back and his thoughts went back to the day when he had found the gold thing. All of the ensuing, unbelievable things which had happened since then! Through it all stood foremost the face and form of the young Chinaman who had been born a son of a ruling house of people who had been civilized long before the white man; Ti Yun, the man whose parent sat now at his side, but whose ancestors had once roamed the lands of the planet, Mars; Ti Yun, whose greatest desire and purpose was to see the earth saved from a ghastly fate, and who had given his life and blood to that end. . . . Ti Yun. . . .

The world went back gradually to its routine, of course, but it was impossible for it to forget in any degree what it had just gone through. Perhaps in the years to come those new generations would read of it and marvel, but it was for the present to



carry in their hearts always those emotions which had once spoken so dreadfully.

The name of Ti Yun became a household word of reverence. It was one spoken with softness always. And in their yearly pilgrimages to the now-gorgeous gardens of that fertile land in Mongolia, the millions bend down on their knees before the beautiful shrine which rests on the spot

where that Martian ship went up in splinters and dust with Ti Yun in the clutch of an eel-man, and the eyes read with abated breath the epitaph:

### TI YUN

He Lived for Others, and Died that Others Might Live

And atop the inscription, set neatly in the head of the monument, is the gold bas-relief.

### THE END

## Science Questionnaire

1. How many poles has the earth? (See Page 11)
2. How is the exact location of an axial pole of the earth determined? (See Page 11)
3. How is the location of the magnetic pole determined? (See Page 11)
4. Does the imaginary line connecting the magnetic poles pass through the center of the earth? (See Page 12)
5. How many polar seas are there? (See Page 12)
6. What are leads and floes of the polar sea? (See Page 12)
7. What is the nature of the area surrounding the south pole? (See Page 12)
8. Are there animals on the south polar continent? (See Page 14)
9. What may be called the most curious of all birds? (See Page 14)
10. What is the grampus? (See Page 14)
11. What is two point type? (See Page 22)
12. What is a myriad? (See Page 28)
13. What would compare in energy with a tenth of a milligramme falling with the velocity of light? (See Page 46)
14. Verify the correctness of the problem on page sixty-one. (See Page 61)
15. What is the relation of the vibrations of matter to sound? (See Page 64)
16. What is the range of human audition in sound vibrations? (See Page 64)
17. Has sound the same velocity of transmission in all mediums? (See Page 64)
18. What is the law of the reflection from a plane surface? (See Page 68)
19. What is the relation of strain and stress? (See Page 73)
20. Which is more durable, paper or papyrus? (See Page 90)

# Blue Beam of Pestilence

By EANDO BINDER

*The author, Eando Binder, gives us a story from the astronomical viewpoint, carrying his characters to the most interesting cosmos. We know that this story will be very warmly received by our readers.*

## CHAPTER I

### WAR DECLARED!

**I**T was in the Sikka 444\* that the inhabitants of the various worlds of the solar system suddenly became aware of the Blue Beam from outer space which threatened to depopulate that thriving community of worlds. Like a sword from Heaven an arrowing beam of visible blue light shot from the void and lighted upon Pluto, the outermost of the planets. The Plutonians, small, sensitive-eyed rational creatures that looked like Earthly spiders, were greatly annoyed by that bright light which shone in their delicate eyes unremittently, every hour of the day. They sent in a complaint to the Solar Council on Earth to ask that the matter be investigated, as it was seriously disturbing their industry and ability.

Two Earth-days later the alarming news came in from distant Pluto that the Blue Beam was not merely bothersome but insidiously dangerous, for already the inhabitants were beginning to die off, gripped in the throes of a mysterious malady that

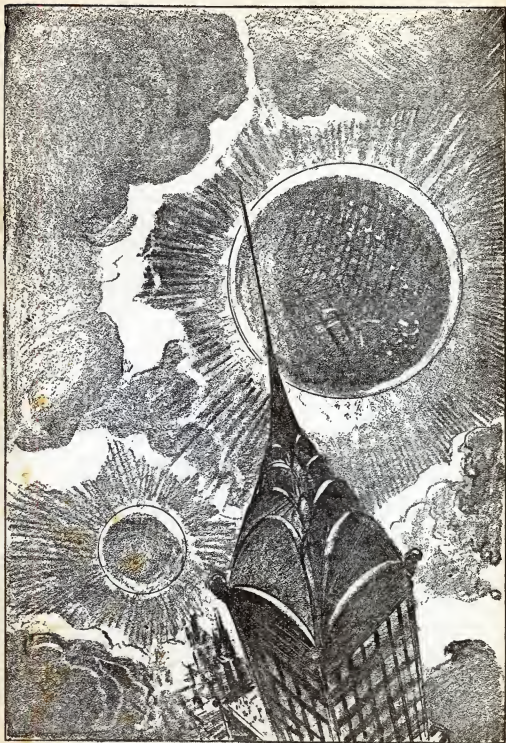
came with the Blue Beam. Then the Solar Council, which had been ponderously deliberating its first move, sprang into action under the impetus of that new fatal development.

From Earth and from all the other worlds, the mystifying light from the void could be seen as a solid-looking blue shaft, extending from Pluto (which was itself invisible to the eye of anyone on the minor planets) out into space till it was lost for distance in the region of alpha-Centauri. That it was not ordinary light was quickly apparent, for then it would have been invisible to any except the Plutonians. It must be some new and astounding type of radiation that could so affect the ether as to make it a reflecting medium as well as a carrier.

As soon as the Blue Beam came and the different worlds saw it in their night skies, a general feeling of unrest overwhelmed the solar system. Its very sight struck a nameless terror in the minds of everyone from Pluto to little Mercury. Its uncanny visibility, its persistent duration, and its mysterious origin sounded a note of dire calamity throughout the Solarian Empire. And it stuck to Pluto like glue, bathing it in a ghastly blue glow.

The Solar Council's first move was to send a delegation of renowned sci-

\*NOTE—the Sikka, time standard of the solar system, was eleven years and three months of earth time. The new time system replaced all local systems of the different worlds in 2556 A.D. Therefore the first eleven years and three months of time after 2556 A.D. became the Sikka One of the solar system. However, each of the worlds still retained and often used their own time-hallowed systems of computing the passage of time. The Sikka was based on the sun-spot cycle of the central luminary.



*Side by side, like two inseparable parts of one object, the gigantic spheres leaped away from the solar system. Their hulls were pure diamond as protection against the Blue Beam should it be directed against them.*

entists to Pluto to investigate the terrifying phenomenon. These men, astronomers and physicists, traced the beam back into space and found it coming from a star in the regions near alpha-Centauri, but much farther away. This brought a sigh of relief to the citizens of the Solarian Empire, for it absolved the Centaurians from the blame; which was well, in view of the fact that these people had attacked the solar system only a hundred Sikka before. They had been repulsed and the two empires had made a peace treaty. Everyone felt glad that after all the Centaurians had not broken their promise.

The star from which the beam originated, the delegation found, was 188 light years away (Earth measurements). It was a small sun as suns go, being but twice the volume of Sol. It was known to astronomers as CX-88.

In two more Earth days the public news-broadcasts blared forth a paralyzing tale of woe that centered on luckless Pluto. Half the Plutonians had died miserably and wantonly from the Blue Beam. A storm of rage swept over the Solarian Empire. Each of the worlds sent in a pointed message to the Solar Council that that body must act, and act soon and decisively. Accordingly, the Council, somewhat slothful after many Sikkas of quiet and peaceful times, shook itself free from lethargy, and drafted a group of the most eminent scientists from every world. These savants were sent to join the initial body of investigators. Their purpose was to save the rest of the Plutonians and to solve the mystery of the Blue Beam.

They fell to with a will and found out certain things about the Blue Beam, but they were powerless to

save the Plutonians. The inhabitants of Pluto died, billions upon billions of them. Only those who had been on other planets at the time, or had left their homes the first day the beam appeared, lived to carry on the race. Strangely, none of the other peoples, whether Martians, Tellurians, Venerians, or any others, were affected by the Blue Beam. They who were left on Pluto, what few there were on the planet at the time, were to bury the masses of dead.

Then, as if the senders of the ray knew exactly what had happened, the beam flicked lightly away from grieving Pluto and darted accurately on Neptune, like a striking snake. At first the Neptunians were panic stricken. Then they were reminded that the Blue Beam could affect only Plutonians and thereupon they breathed in relief. But a short-lived respite that was!

**I**N two more Earth days the Neptunians began to die off with the same symptoms that had marked the perishing Plutonians. Then it was that the Blue Beam was seen to be a little darker, to have a little more color to it. It now was fatal only to Neptunians, leaving untouched all other races, even the few surviving Plutonians that had migrated to Neptune to escape the beam, when it had bathed their world in its baleful glow.

All through the Solarian Empire echoed the terrifying naked truth about the Blue Beam. Its purpose was no longer a mystery. Some alien intelligence on CX-88 was systematically wiping out all life in the solar system, starting from the outermost planet, Pluto, and working inward. It staggered the mind to understand how a beam of energy of some sort,

traversing 188 light years of space, could unfalteringly light on a tiny mote in fathomless space and destroy its rational life in some six or eight Earth days.

Rapidly the dormant fighting instincts of the peaceful Solarian Empire were aroused. Then it was war of a sort! A remote control invasion sure to be followed by actual invasion once the Empire had been almost completely depopulated!

The war-cry rang through the ether, spreading from planet to planet like a fire-brand, until a great and united system of planets shouted in one stentorian voice: "Retaliation! Vengeance! Death to CX-88!"

The Solar Council heeded the call and met on Earth eighteen days after the appearance of the devastating Blue Beam, for a war program.

Siglo Albermarle, Supreme Head of the Solar Council, an Earthman, called the meeting to order. He swung his keen blue eyes about the array of television screens, in each of which was framed the face of one of the Solar Council members. Beside him sat Toom V-3-X-44 of Jupiter and Uaaii-23 of Venus, who had chosen to attend the War Council in person.

The progress of the War Council would be carried to every nook and corner of the Solarian System by super-radio and television\* so that every citizen of each world would know exactly what was to be done in this crucial matter.

"Fellow Councilors and citizens of the great Solarian Empire of Sikka One to 444!" began Albermarle. "We are threatened with utter and abso-

lute extinction by the Blue Beam from CX-88. Thrice before have we been attacked from outer space and thrice have we been victorious. But those other attackers came in space vehicles, so that we had something tangible to battle. Here we have but a Blue Beam! That will call for new methods, new ways to protect our glorious Empire. We will hear first the report of the scientists who have been to stricken Pluto and Neptune."

The spokesman of the scientists, a pudgy, kangaroo-like creature of Mars, reported as follows:

"The Blue Beam, to leave out all technical terms, is a new type of ether vibration travelling, according to our measurements, instantaneously. We have attempted to shield it off, but it penetrates all materials of any reasonable thickness. Only diamond will stop it, but that does not help us a bit, as no planet could be entirely shielded with that material, which is rare in nature and not very easy to manufacture in large quantities.

"The effect of the Blue Beam is to coagulate the colloids of the brain so that the victim first loses sanity and then is brought by paralysis to complete incapacity. Death follows rapidly. As the colloids of the brain-structures of each planetary people are markedly different chemically, the Blue Beam can affect only one race at a time.

"In behalf of my collaborators, I state here and now that we can do nothing more than we have done already to circumvent the diabolical Blue Beam. We have busied ourselves in the last week of Earth-time in promoting the migrations of the Uranians to other planets in an attempt to save them from annihilation, for they will be the next in the path of the Blue Beam. That is all."

\*NOTE—Super-radio and television operated by speeded up etheric vibrations which travelled at a million times the speed of light, thus eliminating the time drag that would accompany radio communication between planets with ordinary vibrations of the speed of light.



There was a hushed stillness. The report of the scientists had suddenly revealed the complete helplessness of the Solarian Empire. Science had as good as admitted defeat. What could the People do?

"You have heard the report of the scientists," said Albermarle slowly. "It is obvious then that we are doomed to virtual extinction if that Blue Beam continues to stab from the dark void as it has for eighteen Earth days already. Pluto and Neptune are practically lifeless worlds. Uranus will next succumb.

"But we will forestall the Blue Beam. Already half the Uranians have moved to other worlds and been replaced by other races. When the beam strikes Saturn in the near future, we hope to have all the Saturnians safely away from their native world. We will continue to do this shuffling of people, despite the hardships and inconveniences entailed, till further plans can be made."

**B**UT even as Albermarle finished a new voice burst into the air. It was the Planet Radio Station of Mercury.

"Councilors of the Solarian Empire and Peoples of the Nine Planets! But a short time ago the Blue Beam swung away from Neptune, but instead of lighting on Uranus as we all thought, it has engulfed our world, Mercury! Already my people are screaming in fear and insanity. We are unprepared, thinking we would be the last to be attacked by the Blue Beam. My people will die almost en masse!"

A series of television images looked at each other in horror. Audible gasps arose from several throats. The Mercurian Councilor fainted dead away, and his screen became blank.

"Master Albermarle!" rang out a deep, resonant voice. Eyes one and all turned to Toom V-3-X-44, Councilor from Jupiter. Twelve feet high he towered, a thin, stalk-like creature with three legs arranged like a tripod, and four long blade-like arms.

"Master Albermarle and Fellow Councilors!" he boomed like a cannon. "It is useless for us to attempt to circumvent the Blue Beam by shiftings of populations. That the instigators of the beam know our every move is evidenced by this last news we heard—that Mercury and *not* Uranus, became the next victim. Even if we shuffle our populations a thousand times, and mix them up on every planet, the senders of the Blue Beam will flash their lethal ray on each planet in turn, attuning it to the different races alternately, thus accomplishing their original aim."

The Councilors looked from one to the other in despair. The words of Toom were only too true!

The Jovian's reverberating voice went on:

"No, fellow citizens of the great Solarian Empire. We cannot hope to survive by fleeing from one planet to another and hiding behind one another's bodies. There is only *one way* to save the Empire. *We must send our warships to CX-88 and fight the menace in his lair!*"

There was a moment of awed silence. Then a unanimous shout arose from the Councilors. "Toom is right! We must go to the lair of the Blue Beam!"

Toom wrapped his arms around the post which stood before his television cell, in the typical Jovian way of "sitting down," and nodded to Albermarle to resume the command.

"Then it is decided," said the Earth Councilor, "that we will at-



tack CX-88. With the armament developed in the last invasion, the War of the Binary Sun, we are well prepared to launch such an attack. One major problem arises immediately, however. CX-88 is 188 light years Earth-time away. With our present space warships, it will take so long to get there that perhaps the Blue Beam will finish its deadly work before we can demolish the projector!"

There was a deep, painful silence following these words.

Then Uaai-23, Councilor of Venus, stirred from his immovable position and spoke. He was a semi-crystalline creature built up in series of protoplasmic sinews and silicic hexahedrons, but three feet long in greater length — a transition product between the crystalline silicon people of Mercury and the amorphous carbon people of Earth. Having no vocal chords, he spoke by means of an intricate mechanical contrivance operated by his thoughts.

"Master Albermarle and Fellow Councilors. I wish to report that the scientists of Venus have perfected a new type of space-engine which can develop a top speed of ten thousand times the speed of light! It has not yet been presented to the Interworld Traffic Council because the inventors wished to experiment with it first. However, in this time of need, the new engine will be immediately placed at the disposal of this Council."

A murmur of approval echoed from the television screens as the metallic voice of the Venerian ceased.

"Good," said Albermarle. "With this new engine we will yet be able to save the peoples of the Solarian Empire. However, we must put through our plans and launch our war-fleet as quickly as possible, for

every extra delay means many more millions of lives lost.

"Whom will we invest with the commandship of the expedition?"

A piping, whistling voice came from one of the screens.

"Fellow Councilors, whom better can we find to lead us in war than the one who leads us in peace? I mean none other than Siglo Albermarle!"

"Siglo Albermarle!" rose the unanimous shout from the Councilors.

"And for second and third commands," went on the piping voice, "the sagacious Toom of Jupiter and the magnanimous Uaai of Venus!"

Another unanimous shout signified assent. Invested with supreme command, Albermarle quickly outlined a program, helped at times by Toom and Uaai. The Solar Council adjourned after a full Earth day of discussion with a complete war-program worked out.

## CHAPTER II

### THE ENEMY APPEARS

EIGHT Earth days after the meeting of the Solar Council to initiate a war-program against CX-88, the warships of the Solarian Empire were ready to leave. In that time the pestilential Blue Beam had destroyed the Mercurians in vast numbers, leaving only the pitiful few of the crystalline silicon people, who had managed to escape from their planet. The Venerians, fearful of being the next victims, left their planet in legions, swarming all over the Solar System. Surplus populations, guided by the hastily authorized Migration Commission, were transferred to stricken Pluto and Neptune.

"Citizens of the great Solarian Empire!" said Commander Albermarle in his farewell address. "Your burden is mighty, but in seven Earth days our ships will be within striking distance of the enemy. Be of good cheer and remember that the powers of the Empire will blast upon the senders of the Blue Beam, if your tribulations seem more than you can bear. We go, people of Sol—to avenge our murdered brethren!"

A mighty cheer rose from the trillions of throats, a cheer that Albermarle could not hear as he stepped into the near-by warship. But he knew without asking that on him and his followers depended the future continuance and welfare of the Empire.

Two gleaming, sparkling warships arose from Earth and shot into the void. They composed the "fleet" of the Solarian Empire. Side by side, like two inseparable parts of one object, the gigantic spheres leaped away from the solar system. Their hulls were pure diamond as protection against the Blue Beam should it be directed against them. Evenly distributed over the surface of the sparkling hulls were alternate rows of short metal tubes, small copper globes, and steel-blue funnelled apertures. A highly-advanced, cooperative group of scientists had put forth every bit of knowledge at their command in the making of the two ships. They were storehouses of almost invincible power.

As the Venus engines, utilizing atomic energy, drove the warships into the void, Commander Albermarle contacted the sister ship, whose command had been entrusted to Toom and Uaali jointly.

"I have here first hand information of the planetary system of CX-88, as compiled by the astronomers of Titan,

sixth moon of Saturn. The star CX-88 has three separate groups of planets, each in a different plane in space. The planets total fifty-six. On one of them must be the projector of the Blue Beam. It shall be our task to determine which of the satellites of CX-88 carries that projector."

Toom's flower-like face swayed slightly in the television screen. "In other words, Commander Albermarle, no easy job."

"I am afraid not," agreed Albermarle. "However, we can do nothing as yet. We must await further developments."

"We can await them in full confidence though," came the mechanical voice of Uaali from beside Toom. "For whatever betide, these two ships of ours will carry us through victors. There are only two types of energy that can affect us at all. It is doubtful if the enemy has either of them."

"I am not sure of that point," said Albermarle, shaking his head. "A race of intelligent creatures that can project a colloid coagulating beam 188 light-years in our Earth measurement through space might conceivably have one or both of those energies available."

The two ships careened by Alpha-Centauri four hours after their departure from Earth. A message of cheer shot to them from that sun. The Alpha-Centaurians expressed regret that under the circumstances they could not offer any material help to their allies, but that should the enemy come out victor and continue their diabolical Blue Beam exploits in the Solarian Empire, they, the Alpha-Centaurians, would take steps to save the Empire from absolute extinction.

Albermarle sent back a message of thanks, but there was a curl of scorn on his lips. He knew that the Alpha-

Centaurians would lift no finger to help the Solarian Empire, unless in the act they themselves would be benefited.

The trip through space settled down to monotonous routine. While Commander Albermarle slept, his second in command, one of the queer squat, creaking Mercurians, Xixxus by name, attended to the light duties of head man. Composed of interlocking silicic ligaments of crystalline texture, he was a slow-moving, tireless creature who required no sleep. His ten mirror-like eyes burned with a fierce fighting lust against the people of CX-88, for the memory of his fellows dying in the throes of insanity and paralysis had burned deep into his rock-like brain.

It was on the second Earth day out that the first test of strength with the enemy occurred. Commander Albermarle had been gazing moodily out at the vista of blazing stars set in a pool of soft purple-black, when his chest-phone buzzed and burst into words.

"Commander Albermarle. Pilot room speaking. The Blue Beam has left Mercury but instead of lighting upon some other planet, it is now centered upon our two ships out here in space!"

Almost immediately Toom's face appeared in the television screen. There was the suggestion of a smile on his slit-like lips.

"The enemy thinks to bring insanity and death upon us, not knowing we are well protected behind diamond hulls."

"I only hope," answered Albermarle, "that they keep the Blue Beam centering on us whom it cannot harm, rather than on the worlds of the Empire."

**H**OWEVER, after six long Earth hours of this strategy on the part of the enemy, during which time

the ray changed from dark blue to purple blue and finally to sky blue, the Blue Beam left the warships and swung majestically, threateningly, back to the Solar System.

The message came from the Empire almost immediately that Jupiter was now being bathed in its eery, fatal glow.

Toom's face appeared suddenly in the screen, contorted in a vast rage.

"Oh, that we could close the distance between us in a trice," he boomed vehemently. "That we might sooner come to grips with that hellish race of CX-88! MY people—now they are to feel the poisoned effect of the insidious Blue Beam!"

"It will not be so bad with your people," said Albermarle consolingly. "A large number of them were moved to other planets by the Migration Commission in preparation for such an occurrence."

Uaai's metallic voice tolled bell-like as Toom bowed his leafy head in resignation and stepped aside.

"We have come to grips with the enemy. Let us hope that we shall emerge as unscathed in future tussles as in this first affair."

Space was a queer sight to the warriors who dashed through the ether at the furious rate of ten thousand times the speed of light. In back nothing could be seen, for the light rays were left far behind. It was the vast chilling emptiness of a bottomless pit. To the side and up ahead the stars shone with colorful intensity, subtly altered from their appearance when seen from a planet. There were also blinding flashes straight ahead as the probing disintegrator beams puffed into atoms the wandering stones of the void to prevent them from colliding with the ships. At times a star grew to a disc and then a ball, sending

its bright rays to the twin spheres, lighting them up like two scintillating jewels.

Inside the ships there was a deathly silence, for the engines were silent in operation. Queer figures stalked about, each astoundingly different from the other in outward form, yet all burning with the same purpose. Citizens they all were of the great Solarian Empire and they had but one aim. One hundred creatures there were in each ship; two hundred souls altogether from some twenty-two different worlds\* of the Empire. Many of them, whose life spans measured all of 500 Earthly years, were veterans of the War of the Binary Suns, when the people of Sol had successfully resisted invasion from outer space. Once again they were fighting for their glorious Empire; they spent much time peering ahead, waiting for the enemy to appear.

Four Earth days out, which was half way to CX-88, Albermarle gave the order to build up the protective screens. As the skillful operators manipulated the controls, the mists of bound electronic forces swirled around the two ships. A low hum came into being inside the craft, a song of power. Then the protective screens took form as vague shimmering shadows and locked about the ships like the moth-ering wings of some gigantic benign being.

It was well that this was done for at the end of the fourth day a soft yellow ray shot viciously from CX-88 toward the avengers. It splashed liquidlike on the electronic screen, sent probing fingers of yellow all around for an opening, then flickered out, destroyed by the screen forces. Again

and again the enemy sent that yellow ray at the two speeding globes and each time it came it splashed more and more thickly on the screen.

Toom's figure appeared in Albermarle's television screen. There was unmistakable sardonic glee on his face.

"The enemy is beginning to tremble, I think. We have warded off two of their most powerful forces already."

"If they tremble now," came Xixxus' voice, mechanically produced like a Venerian's, "they will shake violently later when they come within range of our own armament."

"Could that be but now!" exclaimed Toom fiercely, bitterly. "The Blue Beam has played upon my world now for two Earth days. Already reports have come in from the Empire that my people are dying by the millions!"

Not many hours after, the yellow ray vanished to be replaced by a pale green beam, that hurtled against the screens and sent up a shower of blinding sparks. For many Earth hours this green ray battered the screens, dissolving into fountains of impotent electrical discharges. Albermarle smiled to himself. The enemy would gradually learn that Solarian science was no mean development, being a composite product of many different kinds of intelligent races. They would learn, as Toom put it, that well-nigh invincible forces, in almost indestructible ships, were descending upon them in a mighty wrath at their cosmic misdemeanors.

The green ray was withdrawn after some time and there was peace for a while.

Then Commander Albermarle called for target practice. Each of the ships tossed out small metal balls and the gunners of the other ship whiffed them into nothingness or otherwise

\*Note—Many of the moons of the planets carried distinct races of rational beings, especially those of Saturn and Jupiter.

sent them away from the "field of action."

FROM the funnel-shaped apertures shot powerful repulsion rays which knocked the targets away as a child bats away a stone with a stick. From the copper globes shot streaks of super-high-voltage lightning, fusing the targets, so that they dripped molten in the absolute zero of space. Dim, vaguely-defined disintegrator rays spouted from the metal tubes of the ships' hulls to touch the target balls into scattering atoms and molecules.

The targets were released in a variety of ways, undulating, circling, speeding like bullets, or merely floating, and seldom did the trained gunners let one of them tarry long unmolested. Toom himself took over one of the lightning guns, and Uaai, who stood beside him, could see the prophetic sparkle in his saucer eyes as he expertly flicked target after target. He was imagining that each of them was a ship of the enemy. Uaai sympathised with him, for every minute the reports came in from the Empire that Toom's people, the Jovians, were being decimated in legions.

But now there occurred something that immediately stopped the target practice. A shock ran through both ships and the velocity indicators showed a decided drop in speed. Albermarle, suspecting it to be caused by the enemy, set the scientists to determine what it was that had so slowed them. They reported soon after that an invisible force, powerfully repulsive, was resisting their flight forward. Right after this the pilot reported that despite his efforts, the ship was being turned aside from its course, slowly and inexorably. A moment later Toom's voice burst in and reported the same thing occurring to

his ship. The enemy, with a repulsive force, was shoving them aside and at the same time reducing their velocity.

"We must do something, Commander Albermarle," said Toom. "At this rate we will never see CX-88!"

"We cannot get any more out of the engines," returned Albermarle thoughtfully. "They are already working at their top limit. Let us try changing direction so that the beam will lose us."

Accordingly, with the two pilots of the twin ships working as one, the war craft suddenly swung sideward. After a time Albermarle gave the order to straighten out again. With a surge of power the ships leaped ahead at full velocity in the right direction.

"Slipped out of their hands!" boomed the Jovian.

But Albermarle was less optimistic. He stood waiting expectantly. Then it came again—a pounding shock and the velocity needle dipped.

"Can't escape them that way," said Albermarle. "They have an eye on us."

His chest-phone buzzed and the head scientist, a Martian, spoke:

"I have a suggestion, Commander Albermarle. If we can split the beam and make it flow beside us, the drag will be eliminated."

"Good. Have your staff work on that."

In their completely equipped laboratory, the scientists analyzed the beam, plotted its make-up, and rapidly constructed a cone of force to split it. This cone was built up and enlarged until it engulfed both the ships. Immediately the craft darted ahead and the velocity needles climbed to top speed.

With the uncanny ability the enemy seemed to have of knowing everything that occurred, the repulsive

beam was withdrawn as the splitting cone nullified its effect.

The enemy made no further move during the sixth and seventh Earth days of the voyage. At the beginning of the seventh, CX-88 emerged from the Heavens as a slowly growing disc. Excitement reigned aboard as the lair of the senders of the abominable Blue Beam loomed closer and closer. One and all they eagerly awaited the grand moment when they could descend upon the cowardly enemy like a bolt from God.

As the two ships drew nearer to the sun, the protective screens which had shimmered ghost-like in the starlight of space, faded into invisibility in the strong sunlight, so that the craft sparkled bare and distinct. Pitifully insignificant they seemed as the giant planetary system of CX-88 became recognizable.

It was when the planets had grown to pea-size that the enemy ships appeared. In a vast horde, like bees swarming to a new hive, the bullet craft hurtled up from their sun, their black hulls shining like armor in the sunlight.

Commander Albermarle called a halt when the enemy was sighted.

Toom's excited features appeared in the television screen.

"Look at them. They come in countless numbers, cowards that they are. But they will see what two lone ships can do to them."

The enemy horde came to a stop some distance away as if mocking the two ships that dared to face their numberless might. They had no formation but crowded densely in a black mass. Then they leaped forward.

Now Commander Albermarle barked sharply into his mouthpiece:

"Attention! Battle Formation! At the enemy!"

### CHAPTER III

#### THE RED BEAMS

THE two diamond hulled ships of the Solarian Empire swung in a line parallel to the swiftly approaching enemy and separated till there were five miles of space between them. Then, at Albermarle's signal, a livid stream of translucence flowed from each ship to meet in the middle of the space between them. The two ends of the discharges fused into one another to make an intangible rope linking one ship to another. Then the billowing material began to pulsate and glow brightly like a writhing snake.

It was a source of vast energy. From the very ether of space this undulating rod of energy extracted titanic forces to be used in battle. It flowed into the ships and pooled into giant accumulators, ready to be loosed in any of a number of ways.

From the nearing enemy fleet darted a kaleidoscope of visible rays. They hurtled to the motionless globes, with the quivering line of white incandescence between them, and licked eagerly around the electronic screens, seeking an entrance. Yellow rays splashed like soft mud and crept octopus-like around the screen. Green rays showered in glowing sparks that never touched the diamond hulls. Violet rays struck like a gimlet only to flick out suddenly. Large, blunt metallic objects streamed crazily up to burst into electric dust on the screen. Smaller objects that looked like cubes of sugar sprang up and pounded at the screens, dissolving into white puffs of vapor.

But the electronic screens remained adamant, completely shielding off the hulls from contact with any of the rays or bombs.



Then the Solarians struck. The powerful energies of the ether were loosed from the accumulators. From the copper globes sparkled a steady stream of lightning bolts which fused the black ships like so much butter. From the funnel-apertures sprang repulsion rays, which dashed black ships backward so forcefully as to cause them to ram and smash dozens of others. From the ray tubes issued invisible disintegrator beams, which flicked the black ships into puffs of vapor that diffused instantaneously in space.

In less time than it takes to tell it, there were gaping holes in the mass of black ships where they had been fused, disintegrated, or smashed to jagged bits. But they came on undaunted and completely surrounded the two Solarian ships, sending their rays and bombs at them in furious abandon. So unorganized were they and so demoralized by the steady bite of the diamond ships' armament, that the black ships often destroyed each other in their wild attack. The carnage was still further increased by black ships that inadvertently touched the rod of pulsating energy connecting the Solarian ships, for they would violently burst into fragments, piercing near-by craft with meteoric lumps moving at frightful velocity. Many of these pieces of exploded ships pelted on the diamond hulls of the Solarian ships, affecting them not in the least.

The repulsion-ray gunners, connected by radio, quickly worked out and put into effect a particularly devastating strategem. At a signal all the gunners on the same side of the ships as the rod of etheric energy, would direct their rays straight into the mass of black ships between them. Pushed by the repulsion rays from both sides, the unlucky enemy craft would be crushed

together like a mass of egg-shells. Then a concerted oblique push would send this interlocking mass swirling like a tiny planet into the mêlée of black ships above and below, to smash further dozens to bits.

"They can't last much longer," said Albermarle, speaking to the other ship.

"Surely not. Half their number is gone already," came the metallic voice of Uaaii.

"Where is Toom?"

"He is seated at one of the repulsion guns, Commander Albermarle. He could not stand by merely issuing commands, so he left me in charge and took over a gun."

Albermarle smiled momentarily, then barked several orders, having seen a group of black ships dashing full tilt at his ship in an attempt to ram it. The watchful disintegrator gunners puffed them to tenuous vapor.

QUITE suddenly space became clear; the pyrotechnics of colored rays faded, and the remnant of the enemy fleet fled precipitately.

"Shall we give chase?" asked Uaaii. "We could follow them to their base and destroy it."

"No," commanded Albermarle. "We have a more important task to do for the present."

Toom's face appeared in the television screen. His large eyes sparkled with grim joy.

"I feel much better now, Commander Albermarle. I can safely estimate I destroyed a hundred ships myself! And yet that is but a tithe of the numbers I would wish to send to oblivion!"

"Yes, but we have a bigger score than that to settle, Toom. They have killed citizens of the Solarian Empire numbering many billions. We will pay

back that heavy debt soon, but first we must find the source of the Blue Beam and destroy the projector once and for all. Every added second it continues to radiate its beam adds thousands to the death list back home."

Albermarle connected with the pilots.

"Send the ships down to the Blue Beam."

A moment later a piping voice answered: "The Blue Beam, Commander Albermarle, is invisible. It is nowhere to be seen!"

Toom and Albermarle looked at each other puzzled.

"Could they have stopped it for the very reason we are here?"

"Then back!" cried Albermarle. "Back some two Earth hours in space where I last remember seeing it. That is the only way we will know whether it is off or not."

"There it is!" cried Toom two hours later during which time they had partially retraced their trip in the void. "Just below us."

"Lower ships and follow the Blue Beam!" ordered Albermarle.

Obediently, the two globular craft sank to a position just above the ghostly Blue Beam and trailed it toward CX-88.

"It's gone!" said Uaai puzzled suddenly.

Albermarle ordered the ships backward and then forward paralleling the ray. At a certain point it became invisible and could not be seen up ahead in the direction of CX-88, although it stabbed as viciously as ever to the back.

"What cunning people," commented Xixus. "They have made the Blue Beam invisible as it comes from their projector so that it will be untraceable!"

Albermarle spent a moment in

thought. Then he called the scientists.

"See if you can trace the Blue Beam by instruments."

The report of the scientists came back an hour later as the two ships yet hovered over the breaking point of the colored and invisible parts of the Blue Beam.

"There is no instrument that will follow the Blue Beam, Commander Albermarle. It seems to be charged with some static force that scatters all effort to measure its direction of flow. We have tried sighting also in a line parallel to the beam, but, oddly enough, this line runs through space in between the planets of CX-88, never once nearing one of them!"

Toom shook his head angrily.

"And every moment we delay, my people die!"

Commander Albermarle sucked in his breath slowly and whistled it out, puckering his brow in thought. Then he contacted the radio room.

"Call the astronomical station on Titan moon of Saturn and ask if they can trace the beam to a certain planet of CX-88."

"In the meantime," he continued, speaking to Toom, "we will scout around CX-88 and perhaps we may find out something."

But while the two ships were yet streaming toward their destination, a report came from the radio room.

"The Titan Astronomers will attempt that difficult task, Commander Albermarle, and will report in a few Earth hours. But I have here another report. The Blue Beam has left Jupiter and is now centered on EARTH!"

Only in one way did Commander Albermarle show how that tore his heart. His teeth clicked suddenly shut like a vise.

"We will not delay any longer," he

said grimly. "Full speed ahead! We will raze every planet to the ground till they cry for mercy!"

"Good!" echoed Toom enthusiastically.

Like gigantic thunderbolts, the two spheres leaped toward CX-88. Inside were ten score determined, grimly eager warriors. The last report from the Empire had crystallized their resolve into mighty anger, for Earth had long been recognized as the keynote, the very heart of the Solarian Empire. They must strike and strike quickly lest the Empire become a shambles of crazed, ungoverned peoples; lest the cooperation of the planets of Sol become shattered by the scourge of the Blue Beam.

UNERRINGLY, the globular vehicles sped to the outermost of the planets and hovered above it like a vulture. Then the pulsating rod of energy came into being between them and they began to circle the planet. Utilizing the mighty power of the ether energies, the craft extended invisible tentacles of attraction to the planet. Once this force firmly anchored them some fifty miles above ground, they increased their revolution more and more till they spanned the planet's circumference in a short five minutes. Centrifugal force was offset by the firm anchorage of the tentacular gravitation fields.

"Now!" shouted Albermarle.

As one, all the disintegrators that could point downward poured forth their rays, fed by the rod of etheric energy. Where the broad concentrated rays touched the ground, a trail of white puffs arose. Cities, people, anything on the surface of the planet were whiffed into flying motes.

The maneuver had been planned to the last item. The two interlocked

ships, circling like super-fast satellites, changed their plane of operation every revolution so that new area was constantly bared to the titanic, blended disintegrator ray. To the inhabitants of the planet it must have seemed a visitation from a god, for to them the two diamond-hulled ships would be invisible because of their rapid motion across the sky.

The Solarian Empire had begun its retaliation. It was making its first payment of the heavy debt it owed to the people of CX-88.

Three Earth hours later Commander Albermarle called a halt and looked downward through a telescope, as they drifted lazily over the planet.

Toom's deep voice burst into the air.

"That will teach them a lesson. But there are many more planets. Let us get to the next one."

"That is all we can do, Toom—kill them off as fast as we can to make up for the wholesale murdering of the Blue Beam. They will yet come to their knees before us."

As they sped vengefully to the next planet, a call came from the Titan Astronomers.

"We are unable to trace the Blue Beam definitely to any one planet of CX-88. Our instruments are not delicate enough to reach across the 188 light-years of space accurately."

Commander Albermarle sighed in resignation.

"Then we will continue destroying the enemy civilization. Sooner or later they must come to terms."

"Only then it may be too late," added Xixxus softly, bitterly, thinking of his decimated people.

Four more planets were striped with the devastation of the disintegrator rays in the same way as the first. The gunners almost fought over the privilege of handling the projectors,

they were wild as news began to come in from the Empire that Tellurians were already feeling the effects of the Blue Beam, and that the Empire was tottering from its high seat of unity. A message that tore the heart-strings of the warriors came from the Solar Council:

"The Blue Beam, pressing its poisoned finger on Earth, the brain of the Empire, is rapidly bringing about complete collapse. Already half-crazed citizens are storming the sub-posts of the Council and asking that something be done, although, as a Higher Spirit knows, there is nothing we can do further than we have done. Ships are leaving the Solar System, bound for other stars, bearing hundreds, sometimes thousands of fear-crazed people. The Empire can yet be saved, Commander Albermarle, but the Blue Beam must be stopped before many more Earth days pass or it is the end!"

Commander Albermarle, suddenly old and weary, sent a message back:

"Courage, members of the Solar Council. We are systematically razing each planet of CX-88 to the ground. They will surrender soon."

Then with terse commands, Albermarle sent the ships to the sixth planet to continue the destruction. But here they met opposition.

A vast fleet of the black ships of the enemy, far larger than the other fleet that had been routed, came to meet them. Unhesitatingly, the Solarian ships plowed through them hurling lightning bolts, disintegrator rays, and repulsion rays in a steady stream. In the face of their wall-like front, the Solarian pilots out-maneuvered them and took up the rapid revolution about the doomed planet, cutting a wide swath of destruction across its face. As soon as they slowed up, the

black ships again darted at them.

"We will bring them to their knees!" exclaimed Albermarle. "To the next planet!"

But here something untoward happened. The Solarian ships had worked from the outermost planet to one of its three planetary systems. Accordingly, they were now quite close to the central sun and were almost completely surrounded by other planets further out.

As the two spherical ships began to build up speed around the seventh planet, a soft red beam shot upward from it. Then simultaneously, two other red beams stabbed to them from planets that formed the angles of a triangle with the seventh planet. Immediately their velocity dropped to zero and they became locked into space, held by the three red beams.

Uaaii's metallic voice resounded in Albermarle's ears.

"They have it! That is one of the two forms of energy that can affect our ships! Commander Albermarle, if we stay here we are doomed, for they will lock us tightly into space here and bombard us at their leisure. I think we can break away from three red beams, but if another is aligned on us, we may be completely stalled!"

Albermarle spoke into his chest-  
phone.

"Pilot room! Break away with full power and head for outer space!"

There came a jerk, and tremors ran through the ship. For a moment there was no motion as the powerful engines strained against the binding force of the three red beams.

Then Toom's voice resounded anxiously.

"There is a fourth red beam just flicked on! They are swinging it about, trying to center it on us! We are lost—here it comes!"

## CHAPTER IV

## STRATEGY AND MARTYRDOM

**B**UT at the same moment that the fourth red beam neared the two straining ships, the tug of war ended. With a last wrench the Solarian ships broke away from the three red beams and dashed to safety away from the sun, CX-88.

"Just in time," boomed the Jovian's voice from the other ship. His hair had been standing up straight in excitement. Now it began to fall to normal.

"Now that we know they have the binding energy of the two rays that these ships are not insulated against," said Uaai, "perhaps they have also the other force which can break down our screens and leave us open prey to their rays."

"It is a fearful possibility," returned Albermarle. "We shall have to watch our step more carefully from now on. It is dangerous to let our ships be surrounded by several planets. These people are past masters of long range beams of all sorts."

"And now," he continued, "we must debate our next move. We can out-battle and out-maneuver their ships, but they have the added advantage of ground projectors on their planets. If we continue the work of destruction we began, sooner or later they will lock us with their red beams, and hold us there for all eternity if they cannot destroy us."

"I think it advisable to attempt to arbitrate with them," said Uaai.

"Surely with the utter ferocity they show in battle, and the abominable use of the Blue Beam, we cannot expect them to listen to peace talk," boomed the Jovian from beside Uaai.

"Nevertheless," said Albermarle. "We shall try."

An hour later the radio room succeeded in contacting the enemy by the use of a thought translator on a powerful wave.

"Who calls?" came the mechanical tones of the thought translator.

"Siglo Albermarle, Commander of the Warships of the Solarian Empire, which you have devastated with your Blue Beam."

"You are suing for peace?"

"We will arbitrate for peace," corrected Albermarle.

"Know this then, Solarians. We are the rulers of six planetary systems which we have subjugated by means of our Blue Beam. We saw your system and coveted it, for it is very like our own, sun, planets and all. You have dared to resist, sending ships to attempt to destroy us. You have been successful in a small way, but know this—that we are arising in our might. We will soon crush you to dust. Take the better course. Surrender your ships and we will let you live, only as slaves however. What is your answer?"

"Our answer is that we will continue to raze your planets till there is not a soul living. Beware, senders of the Blue Beam. You are doomed."

Hardly had Albermarle finished than another voice broke in. It was the head scientist.

"Commander Albermarle! We traced that wave. It came from the nearest planet to the sun of the largest system of twenty-three planets. We notice also that due to its peculiar rotation and revolution, it always presents the same face to our Empire! It is highly probable that the Blue Beam is therefore projected from that planet for the sake of convenience!"

Toom and Uaai, in the television

screen, looked at Albermarle and Xixxus in dawning hope.

"If that is so, then we can accomplish our aim in one stroke," said Toom.

"But remember," cautioned Uaaii, "that the planet mentioned is nearest the sun so that we would be going into the thick of the enemy. Those red beams are to be reckoned with."

After further discussion, which was clipped short by a poignant message of woe from home, it was decided to stake their lives on the chance of getting to the projector.

Back into space went the two ships to gather momentum for a mad dash to the heart of the planetary system of CX-88. Then at lightning speed they dashed full tilt toward the sun. Planet after planet was passed and red beams flickered all about them, chilling their hearts. If ever four of them simultaneously touched the two ships, it would be the end. Fleets of black ships leaped after them only to be sadly out-distanced. Nearer and nearer loomed the first planet, a gigantic body larger than Jupiter.

**T**HEN Albermarle drew in his breath. Before them, as far as the eye could reach, loomed a myriad legion of black ships, so close to each other as to be touching. No ray came from them, they moved not a bit. They had but one purpose—to act as a wall between the planet and the invaders.

Albermarle knew he could not crash through. They were perhaps ten or twenty deep. His diamond hulls would not stand such a terrific smash. He gave the order to swing to the other side.

But in order to do this, the ships had to slow up considerably. Immediately a dozen searching red beams followed them, lighting their hulls mo-

mentarily as they flickered on and off. It was a race between the Solarian ships seeking to break the blockade and the red beams aligning on them.

Suddenly there was a terrific jolt.

Commander Albermarle wasted no time.

"Break away to outer space!"

Valiantly the engines strained, fighting the red beams' locking effect.

Then Toom's horrified voice boomed:

"The screens! They have the destroying force for the screens! They are weakening and breaking fast!"

Commander Albermarle gave an order then that startled the engineers in the engine room.

"Feed some of the etheric energy into the engines!"

"It may burn them out," the response came back anxiously.

"We'll have to take that chance," said Albermarle.

A sudden tremor ran through the two ships. Then they broke away from the red beams just as a few of the yellow rays worked through the weakened screens and fused little dabs of the hull.

Once again out in open space, the two warships came to a halt.

Albermarle presented a grave face to Uaaii and Toom.

"We know now definitely that on that first planet rests the projector, because they protected it so completely."

"Our task becomes infinitely greater now that they have found the two energies that can destroy our ships," said Uaaii. His mechanical voice betrayed no emotion, but his curious semi-crystalline face showed a perturbed state of mind.

A message from the Empire yet further depressed them. It stated that Earth people were dying by the mil-



lions and that the Solar Council had but the sheerest thread of control over the formerly united worlds. They had become belligerent and intractable, each trying to save its own people, even at the expense of others.

But these dissensions of the Empire had no counterpart in the warships. Here Martian and Venerian, Uranian and Mercurian, had but one common goal—one aim—to vanquish the enemy. It tore their hearts to hear of those things from home, but it altered not one whit their cooperation and fellowship.

Commander Albermarle called a Council of War in which all participated. The facts were gone over relative to the enemy and the projector and suggestions were asked for. After much unproductive discussion, Toom raised his great voice:

"There is yet one way to destroy the projector on planet one. If once a gap in the enemy ships that wall off the planet from us can be made, our ships could get through. Commander Albermarle, there is one way to do that. I will smash this ship directly upon them, thus opening the way for your ship!"

A murmur ran through the room, alike from those present and from television images.

"But that will mean your death and the death of your companions," said Albermarle slowly.

"That it will," agreed Toom. "But I am willing to die for the Empire!"

He turned to face the rest of his crew.

"As for the rest, they can be transferred to the other ship. I will guide it myself."

But a thunderous shout came from his crew.

"We will follow you, Toom, for the glory and safety of the Empire!"

Uaaii's mechanical voice was heard above the others.

The two ships hovered in space for an hour, filling their accumulators to capacity with the etheric energy. Then they leaped downward to the first planet, Toom's ship in the lead.

WITH frightful velocity they streamed past the planets, mocking the beams of red and yellow that lamely tried to center on them. Once again they neared the massed ships that hid the face of the planet from the invaders. Velocity unabated, the foremost of the Solarian craft shot downward, while the second ship slowed somewhat to await the crash.

A flaming jewel of brilliant scintillation, Toom's ship smashed into the ranks of the enemy and plowed through them invincibly and irresistibly, opening a gaping hole.

Albermarle put a hand over his eyes as he saw the glowing hot ship dip groundward, a jagged edged, broken shell. Then he sprang into action. At his orders the remaining Solarian ship streamed through the hole before the enemy could fill the gap, and raced madly to the portion of the planet facing the distant Solarian Empire. From high above it they commanded an extended view of the planet's surface.

"There it is!" cried Xixxus.

The housing for the projector was a truly gigantic structure, immensely high and wide. From its roof through a hole extended a titanic metal tube. All around it the atmosphere sparkled and glinted from the by-products of its terrific energies. The Blue Beam was invisible here but one and all the Solarians hurled curses upon it.

But Albermarle knew that they must act fast. Already red and yellow beams were flicking about them as they neared the structure. And the

fleets of black ships above descended upon them with a shower of rays and bombs.

Using the stored etheric energies, the disintegrators poured down their withering breath. With a grinding and crashing that echoed even through the diamond hull of the warship, the projector housing collapsed.

"Vengeance!" screamed Albermarle flinging his arms aloft. "We have done our work. The Blue Beam of Pestilence is no more! Now, my faithful warriors, let us fight to the end, for there is no escape from the fleets above us!"

But a mechanical voice startled him by saying:

"There is no death for us, Commander Albermarle. Look—the black ships are falling! That building evidently housed not only the Blue Beam projector but also the power which runs their ships!"

True it was. As if the sky were falling, all the black ships gyrated downward, completely unpowered, to smash on the ground, piling up in great heaps. A number of the falling ships struck the hull of the Solarian ship, but with slight effect.

The gunners, lacking anything to do, now that the enemy ships were gone, crowded to the different ports and gazed at the picture of heaped up debris that covered the ground almost completely. Of the projector there remained nothing. It had been disintegrated to a mist that yet swirled in the air.

One and all they looked to Albermarle as he spoke:

"Let us silently honor the heroism of our fellow warriors, who gave their lives gladly, that we and our peoples might live on!"

For a long minute there was silence in homage to the martyrs.

Then a murmur of joy ran through

the Solarians. The blight of the Blue Beam was gone! Heartening news came from the distant Empire. Already the people had quieted down coincident with the disappearance of the beam, and the Council was already taking steps to rebuild the unity of the Empire which had been badly shaken.

Then Xixxus spoke to Albermarle:

"Now that we have the opportunity, I suggest wiping out the enemy altogether. Every vestige of their civilization should be destroyed for did they not boast that they held in thralldom six other planetary systems? They are tyrants. They deserve death and extinction."

But before Albermarle could answer, the radio room burst in excitedly.

"Commander Albermarle! There is a call here from some unknown party!"

"Who is calling?" asked Albermarle as he was connected to the voice.

"We are the Gulgian Empire, subject to the Star of Fifty-Six Planets. We have followed the progress of your battle with them through our instruments. We are now instituting a revolt against our tyrannical masters who conquered us with the Blue Beam long ago. They enslaved us but now we are revolting and killing them here in our planetary system. You have completely destroyed the Blue Beam projector?"

"Every vestige of it," assured Albermarle.

"Then all is well," came from the ether. "You see, we never dared revolt before because of that constant threat of the Blue Beam. Now that it is gone we will finally lift the heavy yoke!"

After that a series of calls came from each of the other five subjugated

empires, expressing the same joy that the Gulgian had.

"We will go back to our own sun," said Albermarle to Xixxus. "I think we can safely leave the rest in the hands of these other peoples who have been under the subjugation of CX-88 for ages, the Higher Spirit alone knows how many Sikka."

When the lone warship reached Earth, a tremendous ovation was

given to Albermarle, but he waved a hand and said:

"Citizens of the Solarian Empire. You owe everything to the crew of the other ship and to Toom V-3-X-44 of Jupiter and Uaaii-23 of Venus. Honor them as unselfish martyrs for the rest of your days."

And Siglo Albermarle was Supreme Head of the Solar Council for many Sikka after that.

### THE END

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## BOOK REVIEW

**THE PAGEANT OF MAN.** By Stanton A. Coblentz. 319 pages. The Wings Press, New York, 1936.

Mr. Coblentz is well known to our readers as the author of a number of stories which have appeared on our pages. He is more than a writer of fiction in prose and in this book he makes his appearance as a poet, a rôle in which he is not so familiar to our readers. The book is a long poem in which the author opens with a protest against the iniquities of the world, and they are enough to excite the indignation and sorrow of the properly thinking man. War is bad enough, and the determination of almost abstract matters by wholesale slaughter is concentrated misery, but the long drawn out inflictions of personal stupidity and ambitions in governments is almost as bad as war and lasts longer for there is so little chance of arresting its evil course. The poem starts with a full recogni-

tion of the evils with which the world has been afflicted and follows them to its conclusion, the state of things in warlike Europe and in peaceful America gives ample ground for philosophizing about things on this side of the ocean. The poem is not in *vers libre* but throughout is in iambic meter the majority of longer lines being sometimes broken into by shorter verses, making a most interesting body of true versification. The poet seems to be of a mind with the present reviewer—that the world is inclined to go wrong in peace as well as in going to war. If Ethiopia and Spain give the world examples of the stupidity of war, the western hemisphere with its needless restrictions on the freedom of the individual and the desire evinced to have the government do the thinking for the people, give a sad example of the capacity for the evolution of interference with the individual in peace time. It is with pleasure that we warmly commend and recommend the book to our readers.

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# In the Realm of Books

By C. A. BRANDT

From the pen of one of the most versatile yarn spinners have issued two Novels incorporated in one volume entitled:

**THE OAKDALE AFFAIR and THE RIDER.** By Edgar Rice Burroughs (of Tarzan Fame). Published by E. R. Burroughs, Inc. Tarzana, Cal. 316 pages. \$2.00.

*The Oakdale Affair* is a story of hoboes and murderers—the open road—the tramp jungles, and a haunted house thrown in for good measure, written around the adventures of a make-believe Desperate Desmond. It is a good mixture of comedy and tragedy with a dash of the macabre at the end, since the story winds up in a "Necktie" party.

*The Rider* is somewhat "Graustarkian" in conception. It is a story of a dare-devil crown prince of a mythical Balkan Kingdom, who gets into jams and mix-ups with a notorious bandit. And along with this is a beautiful Balkan Princess, a ditto American Heiress and an American Gentleman Adventurer.

Very good reading.

Another good companion for a winter afternoon is:

**MURDER IN G SHARP.** By Kurt Steel. Published by the Bobbs-Merrill Co., Indianapolis, Ind. 320 pages. \$2.00.

Mr. Steel has already quite a reputation as a writer of Mystery Stories. His hero is Hank Hyer, super-detective, who is very greatly different from the usual sleuth encountered in Murder Stories. This sleuth detects for cash on a strictly C.O.D. basis. Hank is a very refreshing type. He combines excellent deducing with the roughness of a Cossack, and his very hard boiled ways add a great deal of fun to a well written mystery story.

Another really good Scientific Mystery Story is:

**THE LONG DEATH.** By George Dyer. Published by Charles Scribners Sons, 597 5th Ave., New York City. 250 pages \$2.00.

The subtitle of this book is: A Catalyst Club Mystery, said Club being a loosely joined group of public spirited citizens, who are authorities in widely different fields and whose combined wisdom and individual knowledge helps to solve a most baffling mys-

tery. In this book we are confronted with the apparently natural death of one John Gregory Hunter, who has been delving into the secrets of the Atom. However natural his death appears on the surface, clues, almost intangible and invisible, lead the members of the Catalyst Club to take up the case. Some powerful influences are hard at work to prevent the solution of the murder—an impudent owner of a yellow rag, and a group of revenge-seeking gangsters, but they are dismal failures against the clever work of the members of the Club. The final discovery of the murderer will come as a surprise to all. One of the rare Mystery Stories with a real scientific background. Well worth reading.

Something for Talbot Mundy fans:

**THE THUNDER DRAGON GATE.** By Talbot Mundy. Published by D. Appleton-Century Co., 35 West 32nd St., New York City, 335 Pages. \$2.50.

As usual in a Mundy thriller, suspense, swift and constant action and plenty of Mystery can be found in satisfying quantities. This book is written around the conflicting desires of Soviet Russia and Japan, to gain control of strategically important Thibet, thereby exerting very considerable influence on China. Strange, we never heard anybody say "poor little Abyssinia," when said country was converted to civilization by poison gas and machine guns, and though nobody is crying "poor little Thibet," our hero, Tom Grayne, takes up the saving of Thibet virtually single handed. The story starts in London, where Grayne gains the friendship of one Thoe-paga, the hereditary keeper of the mysterious Thunder Dragon Gate; it then moves to Delhi by plane; then into Nepal and then into the unknown hinterland of Thibet. We encounter plenty of Lamas, Abbots, Rajahs and even the Legendary "Shang-shang," a giant fighting spider of the Himalayas. This "Shang-shang" is something. It appears to be a cross between a very terrible "Cordial" hangover and four bad nightmares. Furthermore, a maze of plots and counterplots, out of which Grayne emerges covered with glory.

There is enough stuff in this book to satisfy even the greediest Adventure-Mystery Fan. Very exciting and very good reading indeed.

And from the pen of one of our own authors, Hyatt Verrill, two widely different books:

**MY JUNGLE TRAILS.** By Hyatt Verrill. Published by L. G. Page & Co., Inc., Boston, Mass. 329 pages. \$3.50.

This book takes the "Jun(g)k" out of the jungles and it does a very fine job of "de-bunking" the many "Green Hells" and other pseudo jungle books, which appear every so often on the book stands. Mr. Verrill is well equipped with intimate knowledge of the jungles of the West Indies, and Central and South America. For forty-eight years he has been exploring, and the stories in the present volume are the highlights of his many experiences in the various jungles. He knows them intimately, and writes about them convincingly, as they are and not as the fiction writer and office adventurer picture them. The book contains no exaggerations, no far-fetched, dragged-in mysteries, and still the book will hold the reader's interest to the last page. It is one of the top notchers of Jungle books.

**STRANGE INSECTS AND THEIR STORIES.** By Hyatt Verrill. Published by L. C. Page & Co., Inc., Boston, Mass. 201 pages. \$2.50.

I consider the \$2.50 which you will invest in these printed pages a much better investment than any number of nicely engraved certificates showing that you own so and so many shares of "Cheese Mines in the Moon" or "Probable Copper Mines," etc. True, the dividends above small investment will pay, are intangible, but you are buying a lot of knowledge.

Do you know that the Citrus Fruit groves

in California, etc., owe their existence to a small beetle? See page 32, etc.

Do you know that the Cicada appears every seventeen years everywhere on the 25th of May of the proper year? See Chapter IV.

Read about the incredible ants and learn about the strange behavior of spiders.

Do you know that no figs could be grown in California until the Smyrna Fig Wasp was imported?

Do you know that insects are far older than man, and that of all the many thousands of varieties, only two have felt the influence of man: the bee and the silk moth? They have been changed and altered, and to a certain extent domesticated, but all other forms of insects have remained unchanged countless thousands of years.

Lack of space prevents further comments and praises, but in conclusion let me say that I found the book as fascinating as a first class thriller.

I extend my compliments to the makers of the film:

**"THE MAN WHO COULD WORK MIRACLES."** From the scenario of H. G. Wells.

When I reviewed the scenario, I predicted that in all probability we would never see it on the screen. But I was mistaken and I apologize for having been a poor prophet. The producers themselves have produced a miracle. Made in England, of course, and a marvel it is. The production follows the scenario with astounding fidelity, and miracle follows miracle with pleasing rapidity. The technicians who worked out the various productions of the miracles deserve a whole flock of medals. The creation of the great palace alone is worth the price of admission. Don't miss it.



# DISCUSSIONS

In this department we shall discuss every moot topic of interest to readers. The editors invite correspondence on all subjects directly or indirectly related to the stories appearing in this magazine.

## A Letter from a Radio Amateur which Is Appreciative of Our Work and of Its Result.

*Editor, AMAZING STORIES:*

Here's hoping this will prove of enough merit to appear in some current issue, as I have an honest urge to have it read by all of those half cracked or half genius members of the clan HAM who may also be readers of AMAZING STORIES. Sabe! HAM? If you don't, the hombres I am referring to are the Radio Amateurs of this and other countries. And there is a flock of 'em, too.

Not all of these Hams pound a key and send out strings of dit-dit-dit-dahs. Not by a long shot. Many of 'em stick their noses into a mike and hand out a line of chatter that would make Campbell and Smith prick up their ears. When it comes to rays and beams and their accompanying high voltages and what not these chaps are at least trying. Not only in a conversational way, either.

On the air these boys are all of the same age. Surnames just don't exist. Bob, Dick, Red and Al may range in calendar years over half a century, but on the air it does not matter. Bob may be the head of some company which actually employs Red as a packing department assistant, and over the air Red will hand out good honest technical information to Bob about the design of a transmitter which Bob can afford to build and doesn't know how to, and Red, just out of college, could design, build and operate, if he could afford to.

So much for that. What I am wondering about is whether or not these same chaps are readers of Science Fiction. I've been at it ever since I can remember. I really learned to read picking out the words in "Mysterious Island" and "Twenty Thousand Leagues Under the Sea." I've read 'em all, from the old "Argosy," in which appeared such classics as "The Blind Spot," and "The Moon Pool," up to the latest issue of AMAZING STORIES, and as long as such wonderfully mental stimulating material is written and printed I'm going to continue reading it.

Foole on these crabbing critics who must vent their narrow-minded attitude by picking on trivial mistakes made by struggling authors. Let 'em try it once and see how

good they are at turning out interesting stories. The scope of imagination necessary to even supply a plausible plot for such a story as any of the "Skylark" series, is so far beyond the average brain that few understand how much actual knowledge of real science must be at the command of the Author. And what I mean, is that, after reading the whole series many times (I keep all of my back issues, and I mean all of 'em), I can sit back and marvel at the ability of any one author being able to make such a mass of general and specific data hold together and spell out a beautifully written story.

When a piece of experimental apparatus just won't click, and is so full of bugs that I yearn for a Flit gun to help make it perk, I usually grab a copy of AMAZING STORIES and forget about it for a while, knowing that after a little mind-jiggling I'll be able to take one look at it and make it go.

DONALD G. REED, W6LCL,  
2454 Lyric Avenue,  
Los Angeles, Calif.

(We publish your letter to show that we are appreciated for our work and interest in authors by a "Ham," which we suppose means an amateur. Thanks for your very kind letter.—EDITOR.)

## Comparison of AMAZING STORIES Standing with American and with British Readers.

*Editor, AMAZING STORIES:*

AMAZING STORIES has found its most appreciative audience outside the United States. Letters from England, Australia, New Zealand, and other British countries reveal the foreign readers' opinions as being far more favorable than those of the majority of domestic fans.

Americans have three science-fiction publications to choose from—or four, if one excellent periodical leaning more heavily on the weird side of fantasy may be included. The magazine just referred to receives comparatively few condemnatory letters; evidently its readers are fairly well satisfied. Another magazine, of the true science-fiction class, has a relatively high science content,



and rates the idea behind the story higher than the development of the story itself—with, of course, notable exceptions.

A third publication is all blood-and-thunder. It takes the theme and action of a Wild West story and places it on another planet. This is hardly real science fiction. It is, rather, a series of swift-moving events laid in the future under improbable circumstances.

This magazine, however, is not necessarily to be reproved for the general calibre of its stories. On the contrary, it is to be praised for bringing literally thousands of new readers into the field. It attracts the public's eye, introduces it to a particular class of science-fiction, and awakens its interest in newstand fantasy. The newly initiated reader may remain with this one magazine and its class of imaginative fiction; but there is a strong chance of the reader's occasionally picking up copies of another s-f publication, reading it with increasing regularity, and ultimately adding it to his diet. Thus the wild-and-woolly periodical is rendering a service.

British readers, on the whole, are more conservative in their views and tastes. They do not care for rough-and-tumble stuff in their fantasy, nor for unusually novel ideas. What they want is human interest stories written in an imaginative style, with plot-ideas that are less breath-taking, less stupendous. This is what *AMAZING STORIES* offers them; and so long as it continues publishing the same general class of science-fiction, the Britishers will remain satisfied.

We Americans are losing but little: we still have three other magazines offering fantasy of varying classes; and we always can enjoy the occasional Keller yarn, or Binder or Campbell or Fearn tale, that appears in the pages of *AMAZING*.

Countless suggestions could be offered which, if considered seriously, selected carefully, and followed judiciously, would greatly increase *AMAZING*'s popularity with Americans. But why bother? Britain enjoys it, and those less conservative American readers who don't like it are satisfied with one or more of the other magazines.

Each of the magazines has its purpose. Each has an audience which appreciates the value of that purpose. And each audience, differing in taste and opinion from the others, regulates its criticism, suggestions, and general comment accordingly.

But the fantasy fan—who is not the average reader—collects all four magazines, reads the stories which look best to him, and mercilessly criticizes what doesn't appeal to him. It is from the fan, therefore, or from the reader who either seeks to improve

*AMAZING* or who is critical by nature, that you must expect the greatest amount of censure.

WILLIS CONOVER, JR.,  
27 High Street,  
Cambridge, Maryland.

(You are quite correct in your estimation of the standing of *AMAZING STORIES* with the readers in England and in her colonies. But we are sometimes almost as much surprised as pleased at the letters we receive from readers of the United States. We certainly work and think at the Editorial desk and appreciate and are thankful for such comments as yours.—EDITOR.)

Are There Any Communists Among Our Readers? We Suppose There Are Some.

Editor, *AMAZING STORIES*:

I have been a reader of your fine magazine off and on for the past six or seven years, and though at various times I have written your competitors, I have never written you. Not that you are so bad that I do not like you! I generally enjoy the efforts of your authors greatly. But until recently an atmosphere of coldness seemed to overhang your pages.

The entire tone of *AMAZING* has improved so much recently that I now purchase your magazine every time it comes out. Both the editorials and fiction are better than formerly—though smooth edges would help your claim to being the aristocrat.

"By Jove" by Walter Rose was the best piece of fiction I have ever seen in *AMAZING*—while its writing (excepting the author's repeated use of the word "soon") was splendid. A very logical, "Good ole days" tale.

Why don't you bring Paul back to us? He is not illustrating at present. Morey is good on the cover, but his impressionistic style does not adapt itself to the inside very well. He should use more straight firm lines. Less gray would also help.

Thank you for printing poetry, especially the humorous poems of Green and Olsen, and "The Radio."

So many of your readers ask you outright to print their letters! I find the results of my name being printed often surprising, and irritating. Last time I received a proposal of marriage. Some people take awful chances.

Ah, yes; of course I would forget to thank you for your Editorials against Astrology and water witching. But I do appreciate them. Someone has to clear our poor fogged minds before less honest individuals clear our pocket books.

Are there any Communists in the audience? I'd like a correspondent.

Perhaps I've wasted enough of a busy

Editor's time, so I'll close reminding AMAZING of my best wishes.

JAMES MICHAEL ROGERS,  
2006 Court Street,  
Muskogee, Oklahoma.

(If we had the least idea of how many communists abide in your state, we would at least have the grounds for a good guess in answer to your question. Is not marriage communistic? The writer of these few lines is anti-communistic in the strongest sense. But he does believe in marriage.—EDITOR.)

We Are Sorry to Abridge Slightly This Delightful Letter from a Very Nice English Boy. But They Are All of Them Nice.

Editor, AMAZING STORIES:

This is the first time I have written to your great magazine; you do not know how much we appreciate your book over here. We have not a science fiction "mag" over here in Eng.; and I obtain my copy from your agent as early as possible, and I read it until it's finished from cover to cover! I think your critics far too harsh, admitted there are some faults, but nothing is perfect. Taking it all around I don't think it could be much better. You have often wondered why you receive kind letters from English readers; I think it is because your American readers live in a land of plenty regarding Science Fiction mags, and treat them as every day commodities, while we here have to rely on our "Yank mag" stalls . . . It is amusing to see my English brethren write "swell," "not so hot," and an Editorial footnote saying "We do not understand flicks as a word." It looks as if you were English and we Americans . . . I should like to communicate with any English readers who have copies for 1927-1929 with a view to purchasing them.

R. WAKERLY,

74, Crummock, Gds.,  
Kingsbury, N. W. 9,  
Middlesex, Eng.

(We are convinced that your letter would bring results from some of our readers in the United States. You will probably hear from them, from some who are ready to deal with readers in your country. Quite recently an American correspondent sold some back numbers to an English reader. We have a number of alleged Science Fiction magazines but they might have a great deal more science in them.—EDITOR.)

The Editor of AMAZING STORIES Personally Reads All the Letters You Refer to.

Editor, AMAZING STORIES:

By watching your advertisement columns I have managed to get in touch with a reliable sender in New York, and have now

a complete set of A. S. as far back as the end of 1931, and some scattered issues prior to this. Also one quarterly, that containing "The Invaders from the Infinite." I have not had time to read all these copies, but some outstanding stories I have greatly enjoyed are, "The War of the Worlds," "The Invisible Man," "The Radio Ghost," "The Colour Out of Space," "The Treasure of the Golden God," and many others, too numerous to mention.

The general quality of the stories appearing in recent issues is very little inferior to earlier numbers, despite the wails of a few readers who pick out six of the best yarns over a period of two or three years and then grouse because every new issue is not crammed full with stories as good as their favourites.

Nevertheless, I am still hoping to see that new artist you promised us. Personally, I should prefer Howard V. Brown or Frank R. Paul, but almost anyone will do if only we can have a little artistic variety. More illustrations per issue would be welcome. The type used at present is just about perfect; don't change it.

I hope to read more stories by G. H. Scheere, John Edwards, Dr. Walter Rose, Festus Pragnell, A. Connell, E. Schueler and J. W. Campbell, Jr. A new author more than worthy of A.S. would be Laurence Manning.

The Editorials and Mr. Brandt's book reviews are highly appreciated. I don't know whether Dr. Sloane reads these letters but, if not, please persuade him to write a series of editorials on anthropology and kindred subjects.

Best wishes; and may we soon have the large size A.S., published monthly and quarterly as in the days of yore.

T. MOULTON,  
11 Aylesbury Avenue,  
Blackpool, England.

(The Editor appreciates your very appreciative letter. AMAZING STORIES will probably go on as it now is for some time. As we are situated in this part of the world the time for any radical change is not yet with us. But we are watching the signs just as closely as any ship captain and hoping for the immediate future. As far as we may refer to authors you have been and will be given excellent writers' works.—EDITOR.)

A Very Appreciative Letter from a Recent Correspondent.

Editor, AMAZING STORIES:

The soft colors of the June, 1937 cover were very pleasant. I believe Leo Morey is by far the best science-fiction artist, either for cover or inside illustrations; his work is always exceptional. In the little over

two years I've been reading *AMAZING STORIES* he's only made one poor cover and a couple of poor inside illustrations—that speaks for itself! I have been a science-fiction fan for about seven years, and always will be. I do not say *AMAZING* is positively the best s.t.f. magazine going, but I will say this: If *AMAZING STORIES* was again a monthly, with the stories and illustrations and covers it has now, it could far excel any other rival publication. As it is now, a bi-monthly, it is impossible for A.S. to be in the lead. BUT—you will soon be in the lead, and if you keep on at the rate you are now going—who can tell? What you need is more readers and less destructive criticism. Those who criticize *AMAZING* talk a lot but never do anything to help A.S. materially. If the readers would only each get another reader—what could stop *AMAZING STORIES* barring visitors from space or something? Doctor Sloane, you have my sympathy, having to wade through all those letters of unjust criticism and sarcastic remarks. If the readers haven't anything good to say—say nothing. It doesn't help *AMAZING STORIES*; it only discourages the hard-working staff. Now about the June issue. I have already remarked on the cover, and the illustrations were top-hole. "By Jove" has a fine ending for one of the best serials I have ever read. All of Walter Rose's work is exceedingly fine. He reminds me of Weinbaum. Second comes the "Crystalline Salvation." I would welcome more of the "Beam Transmission" stories; this was one of the best of the series. Scheer is always good. "Murder by Atom" by Skidmore was not up to his "Posi and Nega" tales, but far superior to the rather too adventurous "Maelstrom of Atlantis." But why should "The Falcon" have tried to get control of the excitation ray, when he had an invention just as good for his purpose, the atomic changing ray? He must have been crazy! Schueler's "Crawling Terrors" was well written, but rather reminded me of one of Rose's stories. However it was just as good as "The Company or the Weather," which was a humorous little gem. Breuer is equally good at long or short stories. Need I say anything about the Editorial? Dr. Sloane, you're some writer yourself! All in all the June issue was the best I've read so far in 1937 of any S. F. magazines. I'll warrant we get a monthly in 1938, if the readers only do their part. Frankly *AMAZING STORIES* is a bargain at twenty-five cents. The readers should realize that you'll give them the best you can all the time, and that as soon as you can you'll put *AMAZING* in the lead again. Happy thought! One thing more I want to compliment you on. You're

the only s.t.f. magazine that doesn't "brag" (to use slang) about itself in its pages. I'm glad of that. Readers buy the magazine for the stories not for proud self-laudations of accomplishment. *AMAZING STORIES* needs no advertising anyway. Science Fiction fans are far too critical. How about some more Doctor Jameson tales? "Labyrinth" and "Twin Worlds" were two of the best. Believe me, Doctor Sloane, I heartily mean all I have written. I am deeply grateful to you for the way you edit *AMAZING STORIES*. A.S. has the something termed "class." It is the "aristocrat" in tone, appearance and reading matter.

ROBERT SHERWOOD,  
208 Pearsall Avenue,  
Jersey City, N. J.

(It would seem to be almost conceit in the Editor to say that this letter speaks for itself. The writer can imagine how pleasant it is after one has done what he could, to receive such appreciation for our and your magazine. You will have observed in the past that we publish any amount of criticism of our efforts, so a letter of really well thought out commendation is very acceptable, and we could use a stronger adjective than that. We thank you for your encouragement.—EDITOR.)

#### A Twelve Year Old Reader Has Ideas of His Own.

Editor, *AMAZING STORIES*:

This is the first letter I have written to any magazine.

I am 12 years old, and I think I am your youngest reader. I enjoy Science Fiction magazines and books very much.

I like your magazine very much, but I think you should have more short stories. The covers aren't so hot, so try and get Wesso. He's my favorite painter.

In the June issue, I especially like "Crystalline Salvation," then "Murder by Atom." "Crawling Terror" wasn't so good.

Can't you cut down on ads? You could put a fair-sized novelette in the space filled by ads in the last issue.

I like the Editorials, too.

THOMAS CAREY,  
1972 Stanford Avenue,  
Saint Paul, Minnesota.

(We often feel that a letter speaks for itself and needs no answer from us in these columns. The above tells its own story distinctly. It is an interesting instance of what a young writer can put into words. But he should remember that the questions of advertisements rests with the Managers not with the Editor.—EDITOR.)

Our Position and Its Limitations Are Not Realized by Many of Our Readers and Correspondents. This Brings Criticism and Suggestions, the Latter Not Fitting the Case.

Editor, AMAZING STORIES:

I wish to thank you for your recent letter; I respect your opinions. I, too, wish there was more science in the stories of the present, but I don't know what can be done to make the authors write more of it into their narrations. It seems that there is a new group of science-fiction enthusiasts that is gradually gaining in size. This group apparently prefers *fantastic* stories with a negligible amount of science—just a flavoring. They are invading the field of s-f—a field that was originally formed for the pleasure of those who like science—but it is a fact that this class, that dislikes anything scientific, is about as large as is that one composed of the earlier readers of s-f. That presents quite a problem. While AMAZING STORIES was founded as a science-fiction magazine, if the majority of its readers wish for another type of literature to appear in its pages, what is the Editor to do? That is what you and your authors are faced with, and I am certainly glad that I am not in your shoes.

You told me that the supply of stories is hardly equal to the demand. That is an unhappy state of affairs. It seems to me that if there were more authors, the competition would be greater, which would of necessity raise the quality of the material you receive. It is quite probable that the amateur s-f magazines may help to produce more authors by encouraging them to submit stories to them, which they would be afraid to send to AMAZING STORIES. These fan magazines are doing good work considering the short length of time they have been in existence.

I happen to be a member of the Science-Fiction Advancement Association, an organization that publishes an amateur magazine, and I know that several hitherto inactive fans have been encouraged to submit stories to our magazine, *Tesseract*. You watch and see what a short time it will be until some of them send you some acceptable material!

The presence of one of Dr. Breuer's stories in the June issue of A.S. pleased me; I only wish it had been longer. Dr. Breuer has turned out some of AMAZING STORIES' best narratives, some of which rank with the s-f classics. Do you recall "Paradise and Iron" by him in one of the *Quarterlies*? That was a masterpiece! Another author who ranks with Dr. Breuer and whom I would like to see much oftener is David H. Keller. Don't let any of these old favorites

get away from you, Dr. Sloane; I know of several who are equally as good as many of the more recent popular writers.

Is there any chance of a speedy return to the large size? Another magazine has made itself distinctive by offering smooth edges; AMAZING could achieve the same effect by coming out as a large size magazine. In the present form, A.S. cannot be distinguished from several dozen other magazines on the stands. I most heartily advocate your switching back to the bigger magazine of a few years ago, both for my own personal enjoyment and for the sake of A.S.'s circulation.

You probably throw all of my letters away now without even opening the envelope because you know that most of it will be devoted to entreaties for a different format, but I cannot be discouraged—after six years of constant harping, we finally got smooth edges in another magazine, and we haven't been after you for nearly as long a period. You may realize that the average fan is quite insistent; when we want something enough, the Editor either produces or is haunted for years. Why, it's beginning to look like I'll have to publish my own magazine to be able to have a large size magazine again.

Trusting that you will consider my plea, I remain,

ROY A. SQUIRES, II,  
1745 Kenneth Rd.,  
Glendale, California.

(Letters such as yours we are always glad to receive, because they conduce to the interest of the "Discussions." This is a department of the magazine which we would like to see expanded. But it gets squeezed down to small dimensions by the rest of the departments. You give various suggestions and we shall consider them fully, but it is far from an easy matter to put three pints into a quart measure. Your favorite authors have made their appearance again in our pages.—EDITOR.)

A Letter of Good Humored Criticism of an English Correspondent. It Takes All Kinds to Make a World. We Wonder.

Editor, AMAZING STORIES:

Mr. Roy F. Chandler, London, England, must have been indulging in a bit of introspection when he states that he has proof that his fellow readers are CRANKS.

Poor Roy is so pessimistic that he assumed that you should not even read his note. Then he supposed that he should never again read a yarn by his favorite author. He concluded by being extremely doubtful that he'd ever receive a reply to his letter.

Not only that, he seems to think that there is something wrong if a chap's sense of humor allows him to laugh a little at a story being read for amusement.

What sort of space ways affects our serious Mr. Chandler?

If this note should be published, I do not want dear Roy to take my leg-pulling to heart. I mean it all in fun, and to him I say, "Pull in your lower lip—and smile a bit."

MURL EDOUARD DE BEAUCHAMP,  
Muskogee, Oklahoma.

(This is an unusually severe letter or would be were it not written half in fun, perhaps more than half. At any rate the writer stands up for our magazine, it does not matter if some readers think that the others are cranks. There is a saying to the effect that it takes all kinds to make a world. Perhaps this is true to the extent that it would take care of so-called cranks. Then there is always the suspicion that the other person is the crank. But is there not a chance that the reverse may be the case? Your letter radiates good humor. We shall hope to hear from you again.—EDITOR.)

**A Delightful Letter from South Africa. They Have Their Radio Troubles There It Seems in the Two-Language Question.**

**Editor, AMAZING STORIES:**

I just got hold of a back number of A.S. and I'm thrilled to bits with it, in fact I didn't even finish it to write to you but started straight away.

You see I am in hospital, in fact I've been here 3 months now, and I being a regular bookworm caused the matron to tear her hair every time I pestered her for books, so she collected some old books from the other wards among them the October (1936) number of AMAZING STORIES and read it first. So that's how I got introduced to your swell mag.

The stories taking first prize are:—

- (1) "Human Pets on Mars"—L. F. Stone.
- (2) "The Outpast on Ceres"—L. A. Eschbach.

The others, were swell, too, but not so good as those two I named, now.

"Analysis and Synthesis" was very interesting, because you see, although I am in hospital, I still have to do some studying because being in college and in Form IV is no joke. If I don't write exams I shall have to stay there.

It helped me no end in my last test I wrote this morning, you see I read the article and about ½ hour after that my tutor came and gave me the test and after that I read the two best ones and then a few others, I have yet to read "The Council of

Drones" and look at the Science Questionnaire.

You know the way some people criticize this mag and the way others praise it make me think of the miniature war that is waging in Johannesburg over the bilingual radio announcements at the present moment. But it is only the English people who make these silly outbursts and not we Afrikander people. "But what else can we do, we have to fight for our rights," as one English-speaking idiot says, when they have 80% of the announcements in English.

Well I had better end now because I'm sure you'll be wishing you never opened my letter to read all the nonsense I write.

I want you to do me a special favour and print my letter in the next issue, because you see I would like to get some pen-pals from America. I would like boys of all ages who are interested in Physics and Chemistry because I'm simply crazy about those two subjects and I am studying for my certificates which will entitle me to teach at any high school I like.

Here's hoping that you will answer my plea.

I remain, a faithful reader till the end of my days,

(MISS) SUSI VISSER,  
c/o 10—10th Avenue,  
Bez Valley,  
Johannesburg,  
Transvaal,  
S. Africa.

P.S.—By the time I receive your answer I hope to be out of hospital.—S. V.

P.P.S.—Please excuse my writing because I am in bed in the ward.—S. V.

(We regret the delay that has befallen your letter. All we can say in palliation is that "it just happened that way." It will get you some pen-pals in all probability. Write soon again.—EDITOR.)

**A Delightful Letter from an English Writer. But Doesn't the Name of Your Locality Suggest Herne the Hunter and Poor Falstaff's Troubles in the "Merry Wives of Windsor?"**

**Editor, AMAZING STORIES:**

With the February 1937 issue to hand (from one of my A.S. pen-pals) I really must thank you for a superlative issue with a fine cover. I say this for more reasons than one as you will read.

The stories are tops. They're swell. You'll understand "swell" better than any descriptive phrases so I'll leave it at that. My appreciation is not meant to convey just dry praise—it honestly is one of the best issues I have yet seen!

And the "Discussions" is larger! Or am I



dreaming? More than this—besides my own letter—(delightful surprise!)—there are letters from Vernon W. Harry and Roy Esperantest (Roy Test for your benefit) with whom I correspond already—more thanks to A.S.! Further than this, we all appear to be intercommunicated.

I was not quite clear on your comment about my "Post Office Address." If you meant that it was long and detailed, well, the postal guys over here like it that way—y' know, red tape and so on, but if you were getting at something else, please tell me. I'm sure I don't resemble Falstaff in the least (!) And my torments are few—I always get A.S. on time now.

And you want to know what a "flick" is? Ha! ha! ha! I thought you knew, or do you? Well, a "flick" is to us more or less a photograph—"still"—something flicked from the ever-moving scenes of life. Sometimes we in England say we are "going to the Flicks" ("Flicks" being movies). Catch on? I hope you do. Or another way you might have worked it out: Doesn't a "flick" sound rather like something short—something small and quick? Hence it might well be a glimpse or a glance from something. I was thinking that you might find room for a few "stills" from science films—maybe with a little review alongside. Idea? Perhaps some of your readers have views on this?

At this point I would like to thank you sincerely for printing my last letter. It has brought me several correspondents, all of whom are very jolly people. Also it has helped me to dispose of the surplus copies and back issues of A.S. that I did not require to file away.

A word to correspondents (and I want more):

Most of my letters have so far been from the good old States. I'd like to hear from other folks in parts more East. Just write (in English) and say your likes and dislikes and give me a few items to talk about. I'll write to everyone in turn—that's a promise I keep—and don't forget that whilst I may not have just the back issues you want, it is quite possible that I may be able to locate them for you. I have one or two pals who deal in mags and books. So get going, I'm waiting. Many, many thanks to all those who have already written and are still writing. It's mighty fine to be able to hear how the other half lives through the ultra-pleasant medium of one's favourite magazine. I should say "our" magazine. Correspondence does not merely mean the interchange of letters. Photographs, books, tokens, curios, and so on pass back and forth—even cigarettes and stamps and coins . . . to say nothing of good old A.S.!

And now, dear Editor, I would like to tell you that from the moment this letter goes in the mailbox I am literally going to anguish until I get the next issue. Why don't you start the *monthly* issues again? I hope to hear about this. And also, with great impatience, I await the arrival of the issue which I most sincerely trust will contain this great length of writing. If you only knew the delight of getting a letter in the column and the pleasure derived from the resulting correspondence, well, you'd run a mag, for that purpose alone!

I'll be writing to you again soon . . .

Best Wishes and Perpetual Motion to  
AMAZING STORIES.

Very truly yours,

F. R. MAWBEY,

135 Casino Avenue, Herne Hill, S. E. 24,  
London, England.

(Your letter is so complete and interesting that no comment from us is needed. But we do wish to state that we are sorry the delay in giving it a place in our columns has occurred. We will always be glad to hear from you.—EDITOR.)

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Excellent Suggestions from Our Readers  
Cannot Always Be Carried Out. But We Are  
Always Glad to Receive Them.

Editor, AMAZING STORIES:

First of all, I must compliment Mr. Morey on his excellent cover. He is one of the best of science fiction artists. I hope that in the future, his covers are as good, if not better.

The best story in the issue was "Crystal-line Salvation" by George H. Sheer. I enjoyed this story a great deal. I hope that there's more in the offing like it.

"Murder by Atom" was another very good story. I hope there will be more stories about that super-detective, Donald Millstein.

I did not like "Crawling Terrors," by Edward Scheuler, at all. Please avoid stories of a similar nature (unless better written) in coming issues.

A few years ago, I believe, you once issued *Amazing Stories Quarterly*. What has happened to this quarterly? I enjoyed every issue I came across immensely, and, I think that every one else did also.

JACK JOHNSON,  
3009 N. Swanson St.,  
Philadelphia, Pa.

(We sometimes feel that we can hardly answer some of the letters we receive, there is such a uniformity of praise in them. Perhaps it is well that now and then we are scolded for something and we have to take the scolding along with the compliments.—EDITOR.)



## An Editor of a New Magazine Writes to Us About It.

### Editor, AMAZING STORIES:

I wish to tell every fan who reads AMAZING about the greatest little fan magazine going, the "Science Fiction World." Founded by a few readers of "The Aristocrat of Science Fiction," it is devoted to articles, interviews, autobiographies, etc., all of intense interest to every science fiction fan.

So far it has had two issues—one is already out and the other is at the printer's. It is published monthly, and sells for an extremely low price; 2 issues for 15c, or, if you wish to save money, 75c per year (12 issues).

The circle of fans who read it have repeatedly praised it as the best fan mag on the market, and while I'm the editor and don't wish to boast, I would say that their opinion is justified.

The little fiction that we publish is of a very high quality. So far it has been composed of a serial by Dr. David H. Keller. But the bulk of our numerous pages are composed of articles, news, etc.

Many will be interested in the numerous prize contests. And by the way, the WORLD is going to present a cup for the "Most consistent improvement of any science fiction magazine" during 1937. So far, AMAZING leads, in the opinion of the judges (editors of the WORLD).

HAYWARD S. KIRBY,  
Great Barrington, Mass.

(The Editor of AMAZING STORIES thanks you for your appreciation and the good wishes implied in your letter.—EDITOR.)

### Back Numbers For Sale.

#### Editor, AMAZING STORIES:

For the benefit of your readers—especially, your new readers—please publish the following:

Because I can no longer keep them, I must dispose of several years' accumulation of AMAZING STORIES and AMAZING STORIES QUARTERLY. I desire to rid myself of all issues from April, 1926 to August, 1935 of the AMAZING STORIES, and from the Winter, 1928 to the Spring-Summer, 1933—21 issues in all—or the entire number issued—of the AMAZING STORIES QUARTERLY.

The magazines are in good condition, and none of them are without covers. In most cases they are as good as the day I purchased them.

Here is an opportunity for you new readers to obtain the magazines you need to complete your collection. I am quoting no price, for I would rather leave that to any-

one who contemplates purchasing them. All interested please write me, stating your desires, your price, and mailing arrangements.

E. R. MOSHIER,  
430-26th Street,  
Ogden, Utah.

#### STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933.

OF AMAZING STORIES, published Bi-monthly at Springfield, Massachusetts, for December, 1937.

State of New York  
County of New York / ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared J. J. Butler, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the AMAZING STORIES and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Teck Publications, Inc., 461 Eighth Ave., New York, N. Y.; Editor, T. O'Connor Sloane, Ph.D., 461 Eighth Ave., New York, N. Y.; Managing Editor, None; Business Manager, J. J. Butler, 461 Eighth Ave., New York, N. Y.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) Lee Ellmaker, 461 Eighth Ave., New York, N. Y.; Teck Publications, Inc., 461 Eighth Ave., New York, N. Y.

3. That the known bondholders, mortgagees, and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is (This information is required from daily publications only).

J. J. BUTLER, Business Manager.

Sworn to and subscribed before me this 1st day of October, 1937.

EDYTHE E. TOMPKINS, Notary Public.  
Commission expires March 30, 1938.

**BILL, YOU SURE HAVE A SWELL BUILD! DID YOU TRAIN FOR A LONG TIME WITH WEIGHTS AND PULLEYS?**

**ABSOLUTELY NOT! THE ATLAS WAY—WITH NO APPARATUS—MAKES MUSCLES GROW LIKE MAGIC!**

# Here's the Kind of NEW MEN I Build!

**Do YOU Want to Be One?**

BY

*Charles Atlas*



**CHARLES ATLAS**

Holder of title "The World's Most Perfectly Developed Man"—who offers you a 7-day TRIAL with results guaranteed.

Men—meet William J. Goldstein, of Metuchen, N. J., winner of my 1936 Sterling Silver Cup! A smashing example of what my *Dynamic Tension* can do. Look at his sculptured stomach muscles—perfectly proportioned arms—beautiful leg muscles—giant shoulders. Read what he says. "It seems like just yesterday that I mailed you that coupon. Look at me NOW! Your *Dynamic Tension* is the only system that can develop a build like mine—right in the privacy of a fellow's own home! No weights. No pulleys. No freak drugs or diets. I'm proud of the way you made me an 'Atlas Champion'!"

Do you want a prize-winning body like this? Are you fed up with having no strength, no vigor, being only HALF-ALIVE? Then listen—

**Give Me 7 Days and I'll Prove I Can Make YOU a Champion!**

That's all I ask—SEVEN DAYS! In just ONE WEEK I'll absolutely PROVE that I can give you, too, the kind of body men respect and women admire! You will actually see and feel the improvement in even this short time.

I was once a skinny, timid weakling of only 97 lbs. I didn't know what real health or strength were. I was afraid to fight, ashamed to be seen in a swimming suit.

Then I discovered the amazing secret that changed me, like magic, into "The World's Most Perfectly Developed Man"—the title I won twice and have held ever since, against all comers. My secret is *Dynamic Tension*. It is the tested, natural method of developing you inside and out! It not only can give YOU the powerful rippling muscles you'd like to see in your own mirror. . . . It also digs down into your system after such needless joy-killing conditions as ordinary constipation, pimples, indigestion, underweight and overweight.

I have no use for "contraptions" that

can do your heart and other vital organs more harm than good. I have no pills or other queer ideas about body-building. My *Dynamic Tension* method is all it takes to make a NEW MAN of you in double-quick time—and I'm ready to PROVE it to you in a 7-day TRIAL OFFER.

**Book of Photographs—FREE**

Let me show you the amazing results produced for thousands of other men! I'll send you FREE my famous book, "Everlasting Health and Strength." It shows actual photos. It tells exactly what I can now do for your body! Write your name and address carefully on the coupon. Mail to me personally today. I'll rush your free copy to you AT ONCE! Charles Atlas, Dept. 911, 115 East 23rd Street, New York, N. Y.



This is the actual photograph of Wm. Goldstein which Physical Culture Magazine reproduced in a full page in a recent issue.



**CHARLES ATLAS**  
Dept. 911,  
115 East 23rd  
St., New York,  
N. Y.

I want the proof that your system of *Dynamic Tension* will make a New Man of me—give me a healthy, husky body and big muscle development. Send me your free book, "Everlasting Health and Strength."

Name..... (Please print or write plainly)

Address.....

City..... State.....

England—40-42 Chandos Street, London, W.C. 2



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10 MONTHS TO PAY

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**K223**—Attractive 17 jewel watch with case in charm and color of natural gold. Guaranteed to give you satisfaction. Regular \$30 value.

**\$1.70 a month**

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10 DAYS FREE TRIAL

MONEY BACK GUARANTEE

**10¢  
A  
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**KENT**

CASED AND TIMED IN NEW YORK

**\$2475**

## 14K GOLD-17 JEWELS

**P317**—Tiny new 14K solid yellow gold watch with guaranteed 17 jewel movement. Black silk cord band. Regularly \$35.

**\$2.38 a month**



**\$3375**

**M211**—Bulova's new feature—the Minute-Man. 17 jewel curved watch in charm and color of natural gold. Leather strap.

**\$3.28 a month**

Think of it—as little as 10¢ a day (paid monthly) will enable you to own one of these beautiful Diamonds or Watches. I'll send your choice of these bargains for approval and 10-day trial. Simply put a dollar bill in an envelope with your name, address and number of the article wanted. Tell me your age (must be over 20), occupation, employer and a few facts about yourself. Information held confidential—no direct inquiries will be made. I'll open a 10-month Charge Account for you and send selection for approval. If you are not satisfied, send it back and I'll refund your dollar. If satisfied, pay balance in 10 small monthly payments. Send your order today.

**\$2975**

**R126**—Bulova's newest feature—the Lady Bulova—a tiny 17 jewel watch in charm and color of natural gold.

**\$2.88 a month**



**\$3250**

**A7/C16**—Matched Bridal Ensemble in the newest 14K natural gold. 5 diamonds in each ring. Exceptional value at this low price.

**\$3.15 a month**

## 20¢ A DAY buys this 1/4 CARAT DIAMOND RING



**\$5750**

**A341**—Direct importing makes this low price possible. 1/4 carat quality diamond with 2 other diamonds in 14K natural gold engagement ring. Reg. \$75 value.

**\$5.65 a month**



**\$2995**

**A137**—Gorgeous new 14K white gold engagement ring. Large center diamond of high quality; 2 other diamonds

**\$2.90 a month**



**\$1975**

**1185**—Massive 10K natural gold 2 Diamond Initial ring for men. Initial on black anyx.

**\$1.88**

**a month**

**C10**—7 diamond wedding ring in 14K white gold. Diamonds in beautiful step arrangement. A pretty ring priced low.

**\$1.88 a month**



**\$1975**

# L.W. Sweet Inc.

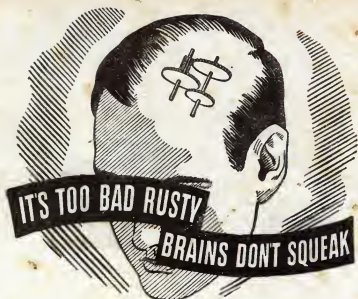
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Complete Catalog of Diamonds, Watches, Jewelry and Silverware all on Ten Months Terms; sent FREE upon request.





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**Modernize**  
**MAKE MORE**  
**MONEY**

## INTERNATIONAL CORRESPONDENCE SCHOOLS

BOX 2107-G, SCRANTON, PENNA.

★ Without cost or obligation, please send me a copy of your booklet, "Who Wins and Why," and full particulars about the subject before which I have marked X: ★

- |  |   |   |  |  |
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| <input type="checkbox"/> Home Dressmaking          | <input type="checkbox"/> Professional Dressmaking and Designing | <input type="checkbox"/> Advanced Dressmaking | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>BUSINESS TRAINING COURSES</b>                   |   |   |  |  |
| <input type="checkbox"/> Bookkeeping               | <input type="checkbox"/> Secretarial Work                       | <input type="checkbox"/> Spanish              | <input type="checkbox"/> French                                      | <input type="checkbox"/> Salesmanship                |
| <input type="checkbox"/> Advertising               | <input type="checkbox"/> Domestic Science Courses               | <input type="checkbox"/> Millinery            | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>DOMESTIC SCIENCE COURSES</b>                    |   |   |  |  |
| <input type="checkbox"/> Home Dressmaking          | <input type="checkbox"/> Professional Dressmaking and Designing | <input type="checkbox"/> Advanced Dressmaking | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
| <input type="checkbox"/> Architect                 | <input type="checkbox"/> Sheet Metal Worker                     | <input type="checkbox"/> Plumbing             | <input type="checkbox"/> Steam Fitting                               | <input type="checkbox"/> Bridge Engineer             |
| <input type="checkbox"/> Architectural Draftsman   | <input type="checkbox"/> Boilermaker                            | <input type="checkbox"/> Heating              | <input type="checkbox"/> Ventilation                                 | <input type="checkbox"/> Bridge and Building Foreman |
| <input type="checkbox"/> Building Estimating       | <input type="checkbox"/> Telegraph Engineer                     | <input type="checkbox"/> Air Conditioning     |  | <input type="checkbox"/> Chemistry                   |
| <input type="checkbox"/> Contractor and Builder    | <input type="checkbox"/> Telephone Work                         | <input type="checkbox"/> Radio                | <input type="checkbox"/> Steam Engineer                              | <input type="checkbox"/> Pharmacy                    |
| <input type="checkbox"/> Structural Draftsman      | <input type="checkbox"/> Mechanical Engineering                 |   | <input type="checkbox"/> Steam Electric Engineer                     | <input type="checkbox"/> Coal Mining                 |
| <input type="checkbox"/> Structural Engineer       | <input type="checkbox"/> Mechanical Draftsman                   |   | <input type="checkbox"/> Marine Engineer                             | <input type="checkbox"/> Mine Foreman                |
| <input type="checkbox"/> Management of Inventions  | <input type="checkbox"/> Machinist                              | <input type="checkbox"/> Toolmaker            | <input type="checkbox"/> R. R. Locomotives                           | <input type="checkbox"/> Navigation                  |
| <input type="checkbox"/> Electrical Engineer       | <input type="checkbox"/> Patternmaker                           |   | <input type="checkbox"/> R. R. Section Foreman                       | <input type="checkbox"/> Cotton Manufacturing        |
| <input type="checkbox"/> Electric Lighting         | <input type="checkbox"/> Diesel Engines                         |   | <input type="checkbox"/> Air Brakes                                  | <input type="checkbox"/> Woolen Manufacturing        |
| <input type="checkbox"/> Welding, Electric and Gas | <input type="checkbox"/> Aviation Engines                       |   | <input type="checkbox"/> Highway Engineering                         | <input type="checkbox"/> Agriculture                 |
| <input type="checkbox"/> Reading Shop Blueprints   | <input type="checkbox"/> Automobile Mechanics                   |   | <input type="checkbox"/> Civil Engineering                           | <input type="checkbox"/> Fruit Growing               |
| <input type="checkbox"/> Heat Treatment of Metals  | <input type="checkbox"/> Refrigeration                          |   | <input type="checkbox"/> Surveying and Mapping                       | <input type="checkbox"/> Poultry Farming             |
| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
| <input type="checkbox"/> Business Management       | <input type="checkbox"/> Bookkeeping                            | <input type="checkbox"/> Secretarial Work     | <input type="checkbox"/> Spanish                                     | <input type="checkbox"/> French                      |
| <input type="checkbox"/> Industrial Management     | <input type="checkbox"/> Traffic Management                     | <input type="checkbox"/> Accounting           | <input type="checkbox"/> Cost Accountant                             | <input type="checkbox"/> U. P. Accountant            |
| <input type="checkbox"/> Home Dressmaking          | <input type="checkbox"/> Professional Dressmaking and Designing | <input type="checkbox"/> Advanced Dressmaking | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>BUSINESS TRAINING COURSES</b>                   |   |   |  |  |
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| <input type="checkbox"/> Advertising               | <input type="checkbox"/> Domestic Science Courses               | <input type="checkbox"/> Millinery            | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>DOMESTIC SCIENCE COURSES</b>                    |   |   |  |  |
| <input type="checkbox"/> Home Dressmaking          | <input type="checkbox"/> Professional Dressmaking and Designing | <input type="checkbox"/> Advanced Dressmaking | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
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| <input type="checkbox"/> Architectural Draftsman   | <input type="checkbox"/> Boilermaker                            | <input type="checkbox"/> Heating              | <input type="checkbox"/> Ventilation                                 | <input type="checkbox"/> Bridge and Building Foreman |
| <input type="checkbox"/> Building Estimating       | <input type="checkbox"/> Telegraph Engineer                     | <input type="checkbox"/> Air Conditioning     |  | <input type="checkbox"/> Chemistry                   |
| <input type="checkbox"/> Contractor and Builder    | <input type="checkbox"/> Telephone Work                         | <input type="checkbox"/> Radio                | <input type="checkbox"/> Steam Engineer                              | <input type="checkbox"/> Pharmacy                    |
| <input type="checkbox"/> Structural Draftsman      | <input type="checkbox"/> Mechanical Engineering                 |   | <input type="checkbox"/> Steam Electric Engineer                     | <input type="checkbox"/> Coal Mining                 |
| <input type="checkbox"/> Structural Engineer       | <input type="checkbox"/> Mechanical Draftsman                   |   | <input type="checkbox"/> Marine Engineer                             | <input type="checkbox"/> Mine Foreman                |
| <input type="checkbox"/> Management of Inventions  | <input type="checkbox"/> Machinist                              | <input type="checkbox"/> Toolmaker            | <input type="checkbox"/> R. R. Locomotives                           | <input type="checkbox"/> Navigation                  |
| <input type="checkbox"/> Electrical Engineer       | <input type="checkbox"/> Patternmaker                           |   | <input type="checkbox"/> R. R. Section Foreman                       | <input type="checkbox"/> Cotton Manufacturing        |
| <input type="checkbox"/> Electric Lighting         | <input type="checkbox"/> Diesel Engines                         |   | <input type="checkbox"/> Air Brakes                                  | <input type="checkbox"/> Woolen Manufacturing        |
| <input type="checkbox"/> Welding, Electric and Gas | <input type="checkbox"/> Aviation Engines                       |   | <input type="checkbox"/> Highway Engineering                         | <input type="checkbox"/> Agriculture                 |
| <input type="checkbox"/> Reading Shop Blueprints   | <input type="checkbox"/> Automobile Mechanics                   |   | <input type="checkbox"/> Civil Engineering                           | <input type="checkbox"/> Fruit Growing               |
| <input type="checkbox"/> Heat Treatment of Metals  | <input type="checkbox"/> Refrigeration                          |   | <input type="checkbox"/> Surveying and Mapping                       | <input type="checkbox"/> Poultry Farming             |
| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
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| <b>DOMESTIC SCIENCE COURSES</b>                    |   |   |  |  |
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| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
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| <input type="checkbox"/> Architectural Draftsman   | <input type="checkbox"/> Boilermaker                            | <input type="checkbox"/> Heating              | <input type="checkbox"/> Ventilation                                 | <input type="checkbox"/> Bridge and Building Foreman |
| <input type="checkbox"/> Building Estimating       | <input type="checkbox"/> Telegraph Engineer                     | <input type="checkbox"/> Air Conditioning     |  | <input type="checkbox"/> Chemistry                   |
| <input type="checkbox"/> Contractor and Builder    | <input type="checkbox"/> Telephone Work                         | <input type="checkbox"/> Radio                | <input type="checkbox"/> Steam Engineer                              | <input type="checkbox"/> Pharmacy                    |
| <input type="checkbox"/> Structural Draftsman      | <input type="checkbox"/> Mechanical Engineering                 |   | <input type="checkbox"/> Steam Electric Engineer                     | <input type="checkbox"/> Coal Mining                 |
| <input type="checkbox"/> Structural Engineer       | <input type="checkbox"/> Mechanical Draftsman                   |   | <input type="checkbox"/> Marine Engineer                             | <input type="checkbox"/> Mine Foreman                |
| <input type="checkbox"/> Management of Inventions  | <input type="checkbox"/> Machinist                              | <input type="checkbox"/> Toolmaker            | <input type="checkbox"/> R. R. Locomotives                           | <input type="checkbox"/> Navigation                  |
| <input type="checkbox"/> Electrical Engineer       | <input type="checkbox"/> Patternmaker                           |   | <input type="checkbox"/> R. R. Section Foreman                       | <input type="checkbox"/> Cotton Manufacturing        |
| <input type="checkbox"/> Electric Lighting         | <input type="checkbox"/> Diesel Engines                         |   | <input type="checkbox"/> Air Brakes                                  | <input type="checkbox"/> Woolen Manufacturing        |
| <input type="checkbox"/> Welding, Electric and Gas | <input type="checkbox"/> Aviation Engines                       |   | <input type="checkbox"/> Highway Engineering                         | <input type="checkbox"/> Agriculture                 |
| <input type="checkbox"/> Reading Shop Blueprints   | <input type="checkbox"/> Automobile Mechanics                   |   | <input type="checkbox"/> Civil Engineering                           | <input type="checkbox"/> Fruit Growing               |
| <input type="checkbox"/> Heat Treatment of Metals  | <input type="checkbox"/> Refrigeration                          |   | <input type="checkbox"/> Surveying and Mapping                       | <input type="checkbox"/> Poultry Farming             |
| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
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| <input type="checkbox"/> Industrial Management     | <input type="checkbox"/> Traffic Management                     | <input type="checkbox"/> Accounting           | <input type="checkbox"/> Cost Accountant                             | <input type="checkbox"/> U. P. Accountant            |
| <input type="checkbox"/> Home Dressmaking          | <input type="checkbox"/> Professional Dressmaking and Designing | <input type="checkbox"/> Advanced Dressmaking | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>BUSINESS TRAINING COURSES</b>                   |   |   |  |  |
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| <input type="checkbox"/> Advertising               | <input type="checkbox"/> Domestic Science Courses               | <input type="checkbox"/> Millinery            | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>DOMESTIC SCIENCE COURSES</b>                    |   |   |  |  |
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| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
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| <input type="checkbox"/> Architectural Draftsman   | <input type="checkbox"/> Boilermaker                            | <input type="checkbox"/> Heating              | <input type="checkbox"/> Ventilation                                 | <input type="checkbox"/> Bridge and Building Foreman |
| <input type="checkbox"/> Building Estimating       | <input type="checkbox"/> Telegraph Engineer                     | <input type="checkbox"/> Air Conditioning     |  | <input type="checkbox"/> Chemistry                   |
| <input type="checkbox"/> Contractor and Builder    | <input type="checkbox"/> Telephone Work                         | <input type="checkbox"/> Radio                | <input type="checkbox"/> Steam Engineer                              | <input type="checkbox"/> Pharmacy                    |
| <input type="checkbox"/> Structural Draftsman      | <input type="checkbox"/> Mechanical Engineering                 |   | <input type="checkbox"/> Steam Electric Engineer                     | <input type="checkbox"/> Coal Mining                 |
| <input type="checkbox"/> Structural Engineer       | <input type="checkbox"/> Mechanical Draftsman                   |   | <input type="checkbox"/> Marine Engineer                             | <input type="checkbox"/> Mine Foreman                |
| <input type="checkbox"/> Management of Inventions  | <input type="checkbox"/> Machinist                              | <input type="checkbox"/> Toolmaker            | <input type="checkbox"/> R. R. Locomotives                           | <input type="checkbox"/> Navigation                  |
| <input type="checkbox"/> Electrical Engineer       | <input type="checkbox"/> Patternmaker                           |   | <input type="checkbox"/> R. R. Section Foreman                       | <input type="checkbox"/> Cotton Manufacturing        |
| <input type="checkbox"/> Electric Lighting         | <input type="checkbox"/> Diesel Engines                         |   | <input type="checkbox"/> Air Brakes                                  | <input type="checkbox"/> Woolen Manufacturing        |
| <input type="checkbox"/> Welding, Electric and Gas | <input type="checkbox"/> Aviation Engines                       |   | <input type="checkbox"/> Highway Engineering                         | <input type="checkbox"/> Agriculture                 |
| <input type="checkbox"/> Reading Shop Blueprints   | <input type="checkbox"/> Automobile Mechanics                   |   | <input type="checkbox"/> Civil Engineering                           | <input type="checkbox"/> Fruit Growing               |
| <input type="checkbox"/> Heat Treatment of Metals  | <input type="checkbox"/> Refrigeration                          |   | <input type="checkbox"/> Surveying and Mapping                       | <input type="checkbox"/> Poultry Farming             |
| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
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| <input type="checkbox"/> Home Dressmaking          | <input type="checkbox"/> Professional Dressmaking and Designing | <input type="checkbox"/> Advanced Dressmaking | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>BUSINESS TRAINING COURSES</b>                   |   |   |  |  |
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| <input type="checkbox"/> Advertising               | <input type="checkbox"/> Domestic Science Courses               | <input type="checkbox"/> Millinery            | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>DOMESTIC SCIENCE COURSES</b>                    |   |   |  |  |
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| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
| <input type="checkbox"/> Architect                 | <input type="checkbox"/> Sheet Metal Worker                     | <input type="checkbox"/> Plumbing             | <input type="checkbox"/> Steam Fitting                               | <input type="checkbox"/> Bridge Engineer             |
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| <input type="checkbox"/> Building Estimating       | <input type="checkbox"/> Telegraph Engineer                     | <input type="checkbox"/> Air Conditioning     |  | <input type="checkbox"/> Chemistry                   |
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| <input type="checkbox"/> Structural Draftsman      | <input type="checkbox"/> Mechanical Engineering                 |   | <input type="checkbox"/> Steam Electric Engineer                     | <input type="checkbox"/> Coal Mining                 |
| <input type="checkbox"/> Structural Engineer       | <input type="checkbox"/> Mechanical Draftsman                   |   | <input type="checkbox"/> Marine Engineer                             | <input type="checkbox"/> Mine Foreman                |
| <input type="checkbox"/> Management of Inventions  | <input type="checkbox"/> Machinist                              | <input type="checkbox"/> Toolmaker            | <input type="checkbox"/> R. R. Locomotives                           | <input type="checkbox"/> Navigation                  |
| <input type="checkbox"/> Electrical Engineer       | <input type="checkbox"/> Patternmaker                           |   | <input type="checkbox"/> R. R. Section Foreman                       | <input type="checkbox"/> Cotton Manufacturing        |
| <input type="checkbox"/> Electric Lighting         | <input type="checkbox"/> Diesel Engines                         |   | <input type="checkbox"/> Air Brakes                                  | <input type="checkbox"/> Woolen Manufacturing        |
| <input type="checkbox"/> Welding, Electric and Gas | <input type="checkbox"/> Aviation Engines                       |   | <input type="checkbox"/> Highway Engineering                         | <input type="checkbox"/> Agriculture                 |
| <input type="checkbox"/> Reading Shop Blueprints   | <input type="checkbox"/> Automobile Mechanics                   |   | <input type="checkbox"/> Civil Engineering                           | <input type="checkbox"/> Fruit Growing               |
| <input type="checkbox"/> Heat Treatment of Metals  | <input type="checkbox"/> Refrigeration                          |   | <input type="checkbox"/> Surveying and Mapping                       | <input type="checkbox"/> Poultry Farming             |
| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
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| <input type="checkbox"/> Industrial Management     | <input type="checkbox"/> Traffic Management                     | <input type="checkbox"/> Accounting           | <input type="checkbox"/> Cost Accountant                             | <input type="checkbox"/> U. P. Accountant            |
| <input type="checkbox"/> Home Dressmaking          | <input type="checkbox"/> Professional Dressmaking and Designing | <input type="checkbox"/> Advanced Dressmaking | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>BUSINESS TRAINING COURSES</b>                   |   |   |  |  |
| <input type="checkbox"/> Bookkeeping               | <input type="checkbox"/> Secretarial Work                       | <input type="checkbox"/> Spanish              | <input type="checkbox"/> French                                      | <input type="checkbox"/> Salesmanship                |
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| <b>DOMESTIC SCIENCE COURSES</b>                    |   |   |  |  |
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| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
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| <input type="checkbox"/> Building Estimating       | <input type="checkbox"/> Telegraph Engineer                     | <input type="checkbox"/> Air Conditioning     |  | <input type="checkbox"/> Chemistry                   |
| <input type="checkbox"/> Contractor and Builder    | <input type="checkbox"/> Telephone Work                         | <input type="checkbox"/> Radio                | <input type="checkbox"/> Steam Engineer                              | <input type="checkbox"/> Pharmacy                    |
| <input type="checkbox"/> Structural Draftsman      | <input type="checkbox"/> Mechanical Engineering                 |   | <input type="checkbox"/> Steam Electric Engineer                     | <input type="checkbox"/> Coal Mining                 |
| <input type="checkbox"/> Structural Engineer       | <input type="checkbox"/> Mechanical Draftsman                   |   | <input type="checkbox"/> Marine Engineer                             | <input type="checkbox"/> Mine Foreman                |
| <input type="checkbox"/> Management of Inventions  | <input type="checkbox"/> Machinist                              | <input type="checkbox"/> Toolmaker            | <input type="checkbox"/> R. R. Locomotives                           | <input type="checkbox"/> Navigation                  |
| <input type="checkbox"/> Electrical Engineer       | <input type="checkbox"/> Patternmaker                           |   | <input type="checkbox"/> R. R. Section Foreman                       | <input type="checkbox"/> Cotton Manufacturing        |
| <input type="checkbox"/> Electric Lighting         | <input type="checkbox"/> Diesel Engines                         |   | <input type="checkbox"/> Air Brakes                                  | <input type="checkbox"/> Woolen Manufacturing        |
| <input type="checkbox"/> Welding, Electric and Gas | <input type="checkbox"/> Aviation Engines                       |   | <input type="checkbox"/> Highway Engineering                         | <input type="checkbox"/> Agriculture                 |
| <input type="checkbox"/> Reading Shop Blueprints   | <input type="checkbox"/> Automobile Mechanics                   |   | <input type="checkbox"/> Civil Engineering                           | <input type="checkbox"/> Fruit Growing               |
| <input type="checkbox"/> Heat Treatment of Metals  | <input type="checkbox"/> Refrigeration                          |   | <input type="checkbox"/> Surveying and Mapping                       | <input type="checkbox"/> Poultry Farming             |
| <b>TECHNICAL AND INDUSTRIAL COURSES</b>            |   |   |  |  |
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| <input type="checkbox"/> Industrial Management     | <input type="checkbox"/> Traffic Management                     | <input type="checkbox"/> Accounting           | <input type="checkbox"/> Cost Accountant                             | <input type="checkbox"/> U. P. Accountant            |
| <input type="checkbox"/> Home Dressmaking          | <input type="checkbox"/> Professional Dressmaking and Designing | <input type="checkbox"/> Advanced Dressmaking | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>BUSINESS TRAINING COURSES</b>                   |   |   |  |  |
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| <input type="checkbox"/> Advertising               | <input type="checkbox"/> Domestic Science Courses               | <input type="checkbox"/> Millinery            | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |
| <b>DOMESTIC SCIENCE COURSES</b>                    |   |   |  |  |
| <input type="checkbox"/> Home Dressmaking          | <input type="checkbox"/> Professional Dressmaking and Designing | <input type="checkbox"/> Advanced Dressmaking | <input type="checkbox"/> Tea Room and Cafeteria Management, Catering |  |

Name \_\_\_\_\_ Age \_\_\_\_\_ Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Present Position \_\_\_\_\_  
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